

A CASE STUDY OF A PROFESSIONAL LEARNING COMMUNITY: AN
INVESTIGATION OF SUSTAINABILITY WITHIN A RURAL ELEMENTARY
SCHOOL

A Dissertation
by
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ABSTRACT

A CASE STUDY OF A PROFESSIONAL LEARNING COMMUNITY: AN INVESTIGATION OF SUSTAINABILITY WITHIN A RURAL ELEMENTARY SCHOOL

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Literature supports the role of professional learning communities as a means of effective professional development for teachers and as a vital factor in increased student achievement. Research pertaining to the sustainability of the professional learning community is limited, therefore, this study was designed to provide insight into the sustainability of a professional learning community. The qualitative study was designed to investigate the type of culture that supported sustainability, the role leadership played in creating the conditions that support sustainability, and if changed teacher practices played a part in the sustainability of a professional learning community. The study's methodology applied the use of focus groups, individual interviews, participant observations, and document review.

Data from the participant observations, focus group interviews, individual interviews, and document review were analyzed using the principles of grounded theory. Based on the analysis of the data, four overriding themes emerged: 1) Learning Focused, 2) Collaboration, 3) Leadership, and 4) Barriers. The four emerging concepts were used as the framework for discussion.

The findings endorsed that professional learning communities can be sustained when a school's culture shifts to one that is collaborative and focused on learning, leadership is shared and distributed throughout the school, logistical and supportive conditions are in place, and teaching practices change as a result of using data to drive instruction.

DEDICATION

Dreams do come true... Mom, this is for you...

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It is difficult to acknowledge my family enough. Words cannot begin to express my true feelings or the immense gratitude I feel when I think of all you have done to support me through every degree I have chosen to pursue during the past twenty-five years. Even when you failed to understand exactly what I was studying and writing about, you always asked about my progress and provided me with the encouragement I needed to get through the hurdles I have faced throughout this educational journey. Especially during the last leg of the doctoral venture, you have been with me during the toughest times. I love you for that support and thank each of you from the bottom of my heart!

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CHAPTER 1

INTRODUCTION TO THE RESEARCH

The 3:00 bell rings and all the children have either been picked up in the car line or they have left the school on one of the five buses. The principal grabs her stack of articles about instructional strategies that challenge high achieving students and heads out of her office. Her study group is scheduled to meet in the school's media center, but she decides to take a quick detour down the hallway where the lower grade classes are located. She drops into Room #106 to find a group of kindergarten teachers working on writing standards for younger students. The teachers are discussing work samples and even share anchor papers demonstrating what kindergarten students should be able to do successfully each quarter of the school year. She proceeds down the hall to find a group of third grade teachers discussing the most recent benchmark that was administered to their students. Each teacher has highlighted specific problems from the benchmark where their students scored less than 75% proficiency. As she stands there, the principal overhears one of the teachers reading the problem number three aloud to group. That teacher follows up with the statement that "only 50 % of my students marked the correct answer for that problem." Then a discussion ensues as to why this may have occurred. The principal slips out and proceeds downstairs to the computer lab to find a mixed grouping of fourth and fifth grade teachers talking about intervention strategies being used with struggling readers from both grade levels. She notes an Exceptional Children's teacher is also part of this discussion. Each teacher seems to be prepared to share video tapes that have been made of their reading groups during different reading activities. The principal takes a quick look at her watch and realizes she is 10 minutes late for her own study group meeting and begins to race toward the media center.

Even in her rush, she feels a sense of satisfaction about what she has just witnessed – adults learning and communicating in a professional setting. Despite this celebration, she thinks to herself, “What do I as the principal of this school need to do to ensure this adult learning continues from year to year? How do we keep the momentum going? What will happen if I take another position and leave the school altogether? Will all this good, productive work fade and diminish entirely in the upcoming years? What should I do to sustain this professional learning community?”

Problem Statement

Despite the research that has been conducted in the fields of effective professional development and professional learning communities, a void exists pertaining to the sustainability of a professional learning community. High-quality professional development curriculum should reflect the most recent research concerning “best practice” and be tied to standards, curricular goals, student achievement, and self-reflection. An effective curriculum for professional development should enrich teaching and improve learning for all students, thus, being an essential link to higher student achievement. Guskey (2000) wrote, “teacher knowledge and practices are the most immediate and most significant outcomes of any professional development effort” (p. 75). Elmore (2002) summarized that “professional development is the set of knowledge – and skill-building activities that raise the capacity of teachers and administrators to respond to external demands and to engage in the improvement of practice and performance” (p. 13). Professional development should be an on-going process conducted in a long-term, sustained manner that is job embedded and inquiry based. School improvement goals should be clearly linked to reform efforts through effective professional development curriculum.

The current literature provided research supporting the role of professional learning communities as a means of effective professional development, the benefits to students and teachers, the stages of implementation, and role of the leader in the implementation of the professional learning community (Little, 1990; Kruse, Louis, & Bryk, 1995, and McLaughlin & Talbert, 2001). However, there appears to be limited research pertaining to the sustainability of the professional learning community. Therefore, this study attempts to provide insight into the sustainability of a professional learning community by investigating the type of culture that supports sustainability, the role of leadership in creating the conditions that support sustainability, and the impact of teacher practices in the sustainability of a professional learning community.

The findings of this study provide fundamental information to educational personnel already involved in the utilization of a professional learning community and to individuals wishing to glean ideas about ways to ensure the professional learning community is sustained, despite changes that may occur within the community of learners. The information obtained through this research also provides important information that will help school personnel when faced with barriers in their attempts to implement this type of profession development.

Research Questions

Despite the extensive research conducted in the field of effective professional development and professional learning communities, I found an omission in regard to studies tied to the sustainability of a professional learning community. To provide focus for this research, the following questions were developed:

1. What is the culture of a school that creates conditions for sustainability of a professional learning community?
2. What is the role of leadership in supporting these conditions?
3. What, if any, are the long-range effects on teacher practice through the change in culture that results in sustainability?

Methodology

To sufficiently address these research questions, a case study was conducted. This case study involved the use of focus groups, individual interviews, observations of professional learning community meetings, and document review. The use of multiple sources of data collection better enabled the researcher to triangulate the data that emerged from the study. Since the intent was not to generalize to a particular population, but to thoroughly explore the sustainability of the professional learning community in a rural elementary school, this study used qualitative inquiry. A case study approach for the fieldwork at the selected school lent an understanding to the complex topic of sustainability (Merriam, 1988, Patton, 2003, Yin, 1994).

Significance of the Study

The primary purpose of a professional learning community “is to enhance teachers’ effectiveness as professionals, for students’ ultimate benefit” (Bolam, Stoll, McMahon, Wallace, and Thomas, 2006, p. 229). Hord (1997) noted in her literature review that the following results have been observed for staff members working within a professional learning community:

- (a) reduction of isolation for teachers,
- (b) increased commitment to the mission and goals of the school,
- (c) shared responsibility for the total development of students and

collective responsibility for the students' success, (d) powerful learning that defines good teaching and classroom practice, (e) increased meaning and understanding of the content that teachers teach, (f) higher likelihood that teachers will be well informed and inspired to motivate students, (g) more satisfaction, higher morale, and lower rates of absenteeism, (h) significant advances in adapting teaching to the students' needs, (i) commitment to making significant and lasting changes, and (j) higher likelihood of undertaking fundamental systemic change (p. 27).

In the same literature review, Hord (1997) noted the following benefits for students:

(a) decreased dropout rate and fewer classes "skipped", (b) lower rates of absenteeism, (c) increased learning that is distributed more equitably in the smaller high schools, (d) greater academic gains in math, science, history, and reading than in traditional schools, and (e) smaller achievement gaps between students from different backgrounds (p. 28).

DuFour (2004) was cited in the West Bloomfield School District Southfield Public Schools' electronic newsletter as noting the following advantages for teachers working in collaborative teams in professional learning communities:

(a) gains in student achievement, (b) higher quality solutions to problems, (c) increased confidence among all staff, (d) support of one another's strengths and an accommodation of weaknesses, (e) ability to test new ideas, (f) more support for new teachers, and (g) expanded pool of ideas, materials, and methods.

Lieberman and Mace (2008) have come to understand that adult learning, rather than being solely individual as many have thought in the past, is actually also social. People learn from and with others in a variety of ways. Adults learn through practice (doing), through

meaning (intentional), through community (participating and being with others), and through identity (changing one's attitudes and thoughts). There is now a great deal of evidence that teachers learn best when they are members of a learning community (Stoll & Louis, 2007; McLaughlin & Talbert, 2001; Westheimer, 1998). Bolam, et al. (2006) wrote that while hard research evidence has been limited, there are implications that professional learning communities and higher student achievement are linked. A documented effort supporting increased student learning took place after a five-year project in the United Kingdom (Jackson, 2006; Jackson & Temperley, 2007). In the project, teacher networks were developed where the teachers planned collectively, developed problem-solving teams, and shared professional development activities. These networks of teachers from different schools managed to raise achievement for students, learned to work collaboratively in rigorous and challenging joint work, and managed to build trust in making teaching public as they developed and distributed leadership among the teachers (Earl, Katz, Elgie, Jaafar, & Foster, 2006).

Most educational leaders agree that changing the format of professional development opportunities is critical if the needs of children are going to be met and student achievement improved. Educational leaders are continually searching for strategies to improve the structure for professional development and professional learning communities seem to fit this need. Nevertheless, effective educational leaders also know that regardless of the need for change within the traditional format of professional development, lasting reform cannot and will not be sustained without a comprehensive understanding of what must be done to perpetuate the change.

Wei, Darling-Hammond, and Adamson (2010) shared that teachers nationwide in 2008 had fewer opportunities to engage in sustained professional learning opportunities than they had four years earlier. The 2010 report was published by the National Staff Development Council and it examined data collected from the federal government's Schools and Staff Survey (SASS) in 2008 as well as other sources. The NSDC also revealed teachers were half as likely to report collaborative efforts in their schools as teachers did in 2000. Unfortunately, in this regard, U.S. trends are going in the wrong direction as far as the sustainability of professional learning communities go. The inability to sustain learning communities in schools is a barrier that requires serious attention for the leaders and participants within these organizations.

The significance of this study was to acknowledge a gap in knowledge exists as to the conditions that are needed to be in place to sustain this type of effective professional development. This shift in research from defining the operational characteristics of a professional learning community to studying the developmental aspects of sustaining a professional learning community allows researchers to move beyond determining whether or not a school possesses the characteristics of a professional learning community to examining how schools establish and sustain effective professional learning communities. To fully comprehend the implications of the sustainability of a professional learning community, it was essential to determine what kind of culture perpetuates the sustainability, the role leadership plays in creating the conditions for sustainability in such an environment, and ascertain if any long range effects on teacher practice through the change in culture result in the sustainability.

Definition of Key Terms

1. Professional Learning Community: A collegial group of educators who are united in their commitment to student learning. The group shares a vision, work and learn collaboratively, visit and review classrooms and colleagues, and participate in shared decision making (Hord, 1997). As an organizational arrangement, the professional learning community is seen as a powerful staff development strategy for school reform and improvement (Hord, 1997).
2. Professional Study Group: A student-driven approach to professional development. The group of individuals is typically comprised of teachers within a school whose students have a common need. The group of professionals may come together because they wish to investigate ways to increase student learning, provide solutions to problems, study and test new strategies in the classroom, or enhance their teaching skills (Educational Testing Services, 2001).
3. Professional Development: A comprehensive, sustained, intensive approach to improving teachers' and administrators' effectiveness in raising student achievement (Guskey, 2003).
4. School Reform: Driven activities that alter existing procedures and rules within schools. Such changes enable the organization to adapt the way it functions to new circumstances or requirements (Conley, 1993).
5. Professional Development Reform: The restructuring of the learning of professionals within schools. The restructured learning activities change fundamental assumptions, practices, and relationships (both within the organization and between the

- organization and the outside world) that lead to improved and varied student learning (Guskey, 2000).
6. Sustainability: Sustainability of a professional learning community is defined as being a community whose long term prospect for continuing to exist are good. Such a society would be characterized by an emphasis on preserving the environment and developing strong peaceful relationships between people and nations. Sustainability is a label applied to innovations that last for a number of years beyond their inception (Fullan, 2005). Sustainability is reform that lasts over time and becomes an institutionalized feature of a school (Taylor, 2006).
 7. Andragogy: Learning strategies focused on adults. It is often interpreted as the process of engaging adult learners with the structure of the learning experience (Smith, 1999).
 8. Data Wall: Visual chart developed in schools to depict academic progress throughout the school year.

Organization of the Study

The researcher presents the study using the standard five chapter organization. In Chapter 1, the researcher provides a vignette that served as a precursor to the significance of the study. She also presents evidence that professional learning communities benefit staff and students and defined the key terms relevant to the study.

Chapter 2 includes a comprehensive review of literature about professional development reform in the United States and the evolution of the professional learning community. The characteristics of sustainability are introduced, as well as the conceptual and theoretical frameworks of the study.

Chapter 3 addresses the study's research methodology. The researcher communicates the criteria used for the site selection of the study while also identifying all sources of data, the procedures used to collect the data, and the process implemented to analyze the data that was obtained during the study in this section of the work.

Chapter 4 focuses on the findings of the research. The presentation of findings includes themes, patterns, commonalities, and discrepancies that were revealed during the study.

Chapter 5 recaptures the key events of the study while providing a summary of the results. The chapter begins with a brief introduction, restatement of the problem, review of the methodology employed, and it also includes a summary of the results. An interpretation and discussion of the findings, along with the correlations of the study with previous research, are included in this section of the work. Implications for practice and for future studies are also presented.

CHAPTER 2

REVIEW OF RELATED LITERATURE

In preparing a critical analysis of the literature surrounding the sustainability of a professional learning community, it is essential to develop a comprehensive understanding of how the professional learning community represents a significant reform in American public education. An important component in addressing the structure of a professional learning community is to determine what the term means as well as develop a knowledge base of the evolution of such a professional development model. Understanding the foundational structure, definition, benefits and barriers of the professional learning community prepares a path for linking the sustainability of this professional development model. This literature review is divided into the following sections: (a) Foundation of Teacher Learning, (b) Professional Learning Community, (c) Sustainability, and (d) Theoretical and Conceptual Framework.

Foundation of Teacher Learning

Educators are expected to continue learning throughout their careers to improve student achievement. However, it was not until the early decades of the twentieth century that scholars and practitioners began asking how adults learn. Merriam (2001) stated, “As a drive to differentiate adult education from other forms of education, adult educators began to consider whether adult learning could be distinguished from learning in childhood” (p. 4). No longer did educators question whether adults could learn; instead, the focus of how and why they learn emerged. In 1968, Malcolm Knowles proposed a new label and new technology of adult learning to distinguish it from pre-adult schooling known as andragogy. Knowles (1980) defined andragogy as the elements that help adults learn. For Knowles (1980),

andragogy was originally premised on four crucial assumptions. These assumptions describe the adult learner as someone who: (a) has an independent self-concept and who can direct his or her own learning, (b) has accumulated a reservoir of life experiences that is a rich resource for learning, (c) has learning needs closely related to changing social roles, (d) is problem-centered and interested in immediate application of knowledge. A fifth assumption was added later. This assumption was that “as a person matures the motivation to learn is internal” (Knowles, 1984, p. 12). Assumption number six was added more recently (Knowles, 1990). This assumption involves adults needing to know the reason why they need to learn something before undertaking the learning process. Adult learners need to become aware of the “need to know” to understand and appreciate the value of the learning experience. Hence, after establishing the reason to learn, one internalizes a motivation for that learning. Such is the case in a professional learning community. Once a teacher becomes cognizant of the need to improve learning and instructional practices, that individual directs his or her learning experiences to meet the immediate needs of the students.

About the same time that Knowles introduced andragogy to North American adult educators, self-directed learning appeared as another model that helped define adult learners as being different from children (Merriam, 2001, p. 8). In a study built upon the work of Cyril Houle and conducted by Allen Tough in the late 1960s and early 1970s, self-directed learning is described as learning that is vast, occurs as part of adults’ everyday life, and is systematic yet is not dependent on an instructor or a classroom (Tough, 1971). Galbo (1998) wrote, “Adults are self-directed learners who are unique based upon their personal experiences. Their need to learn results from their desire to face the challenges they encounter throughout life” (p. 1).

In education, change is inevitable and teachers are faced with the need to learn continuously. In traditional school settings, the child has typically been referred to as the learner and the adult charged with his/her learning has been referenced as the teacher. At present, a shift is occurring within the educational realm that focuses on adult learning in America's classrooms. Trotter (2006) wrote, "Teachers are constantly learning, growing and adapting to new techniques, new content standards, and new curriculum" (p. 1). Self-improvement is a necessity for teachers wishing to positively impact student learning and achievement. Elmore (2000) stated, "Heavy investments in highly targeted professional development for teachers and principals are the fundamentals of strong classroom instruction" (p. 28).

Educators have deemed traditional professional development has been deemed ineffective. Galbo (1998) continued by saying, "In the traditional model of training, an outside "expert" attempts to teach those in attendance new ideas and skills. This type of training usually leaves participants without the ability to apply new skills or knowledge once they return to the workplace" (p. 1). Research conducted by Joyce and Showers (1988) showed the following outcomes of different types of professional development:

Only 5% of learners will transfer a new skill into practice as a result of theory alone. Ten percent will transfer new skills into practice as a result of theory and the demonstration of the new learning. Twenty-five percent will transfer a new skill into applied practice if theory, demonstration, and practice of the new learning are conducted in the training. Twenty-five percent will transfer a new skill into practice if the use of theory, demonstration, practice, and feedback are provided during the training. Ninety percent will transfer a new skill into use if theory, demonstration,

practice, feedback, and on-going coaching are provided as elements of the professional development program (p. 70-72).

This research suggests that traditional models of professional development do not work.

Speck (1996) proposed the following components of adult learning theory as those most critical to effective professional development design:

1. Adults need real-world applications. The training will have more meaning to the participants if they feel as if they can use what they have learned in the workplace.
2. Adults want to be treated as competent professionals. Participants need some control over the specifics of the what, how, why, when, and where details of their learning.
3. Adult learning involves egos. Professional development opportunities should be structured to allow support from peers and to reduce the fear of judgment while participants are learning to apply new skills.
4. Adults need constructive feedback on their efforts to learn and apply new skills.
5. Adults benefit from professional development activities that allow them to participate in small-group activities that provide opportunities for application, analysis, synthesis, and evaluation.
6. Adult learners are unique individuals with a wide range of skills and experiences. Individual needs and differences must be accommodated in the professional development planning and implementation.
7. The transfer of learning must be facilitated. Coaching and other kinds of

follow-up support are needed to help adult learners transfer learning into daily practice so that it is sustained.

Making professional development meaningful for educators means paying attention to the needs of adult learners. Thus, effective on-going learning experiences for adults require opportunities for collaboration.

Professional Development Reform in the United States

As a result of recent school reform, many districts in the United States are now heeding the calls that have been made for a move toward increased time dedicated to professional development and teacher collaboration (Musanti & Pence, 2010; Sim, 2010; Baillargeon & Shema, 2010). In order for lesson study or similar kinds of professional development to be effective within learning communities, teachers must have time within the school day to meet, collaborate, and watch each other teach (Shidler, 2010; Vanderburg & Stephens, 2010). To impact student learning, time for teachers to learn and improve their instructional practices is critical. When time is provided within the daily schedule, administrators are sending a clear message that such work is respected and a necessary part of the school culture.

Since the 1980's, professional development has been viewed as a key to school improvement. As part of a push to reform schools, instructional schedules are being altered across the country to provide teachers more opportunities to work together and collaborate. In fact, many school districts have been forced to create time for staff development due to low test scores, staff turnover, and newly adopted programs. Stoll, Bolam, McMahon, Wallace, and Thomas (2006) wrote, "Evidence of teacher talk and exchange about professional issues is a key indicator of a learning community. To facilitate this, the research

suggests that the school needs to be organized to allow time for staff to meet and talk regularly” (p. 240). Bullough (2007) conducted an eight-year study that pertained to school reform and professional learning communities. Bullough’s (2007) findings indicated that teacher education has to be more than a matter of learning about and performing promising teaching techniques; it has to involve exploration and engagement with others to solve personal and professional issues faced in the educational arena at present.

Zimmerman’s and May’s (2003) study on what is holding educational leaders back from providing effective professional development to teachers concluded that time is one of the major barriers to adult learning in schools. Changing and improving teaching practices is the ultimate goal of effective professional development; thus, time has to be designated for this learning to occur. DuFour and Eaker (1998) wrote, “The way in which a school structures its time can have a tremendous impact upon commitment to a change process. This fact is often overlooked in school improvement initiatives” (p. 121). Despite its importance, the way schools are attempting to overcome the time barriers they face varies from location to location. As a result, there is no “one size fits all” model that works in every school.

In an effort to provide this essential time within the school schedule, several promising practices have evolved. One strategy that has been successful is creating a master schedule that supports a collaborative culture. Common planning time for team members within a school’s master schedule allows grade level planning; subject-area and interdisciplinary team collaboration; or formal and informal instructional support. Halsdorfer (2006) noted other strategies being implemented to “create” more time involve banked time or an extended day. The banked time model involves adding minutes to a teacher’s professional day. Instead of spending the additional time with children, the school district

“banks” the time and puts it toward professional development hours. Teachers are allowed to calculate this time toward school improvement requirements and initiatives. The extended day model involves adding longer amounts of time to the end of the day. Halsdorfer (2006) reported that the extended model is the most commonly used strategy in the Rochester City School district in New York. While this popular approach is used in most school districts throughout the United States, “many teachers find it hard to focus after a long day with children. Teachers are exhausted, which impacts their ability to retain and completely understand a new concept” (Halsdorfer, 2006, p. 3). DuFour and Eaker (1998) argued that time for collaboration should be provided during the school day, not as an add-on after regular school hours or on Saturdays.

To prevent teachers from having to stay after hours, some schools and districts have begun to extend the school day four days each week and dismiss early one day, allowing teachers time to learn collaboratively. In fact, the Southeast Comprehensive Assistance Center (SECAC) produced strategies in 2008 that educators across the country are using to embed school improvement initiatives into the school day. These strategies include:

1. Freeing up time for teachers requires various arrangements in which teachers are not involved in student supervision. By enlisting administrators to teach classes, teaming teachers to instruct for one another, engaging parents and/or community volunteers to provide alternative activities, and implementing a team of experienced substitutes, teachers were able to meet during the day.
2. Restructuring the school day allows schools to alter the time frame currently being used in traditional school calendars. Students are dismissed early several times each year to provide time for staff development and school related improvement activities.

Non-teaching days are also used when students do not report to school, or in some cases, the students arrive later than normal to accomplish the same type of adult learning.

3. A more efficient focus on the use of time allows planning and collaboration among staff. Some schools are using scheduled meeting and professional development activities more effectively by reducing administrative affairs at faculty meetings and allowing time for talking, thinking, sharing, and reflecting about substantive issues. Instead of using staff meetings for administrative responsibilities, leaders post memos on bulletin boards and use email when disseminating information. In some cases, a better use of time involves restricting the time required for nonprofessional duties within these schools.

4. Hiring additional teachers and support staff to reduce class size also allows for additional planning sessions within these schools. Often, grant writing is another way to secure the monies to pay for release time for the faculty to plan and prepare together.

5. The use of district and state allocated staff development funds to pay stipends to teachers for summer planning time is another strategy to overcome time barriers. Negotiating agreements to pay or compensate teachers for evening and summer planning activities, as well as providing renewal credits for personal time used to plan and develop new programs, was another initiative to carve out time for adult learning.

Regardless of the strategy being used to capture time, increasingly the research suggests that professional learning should no longer be viewed as an event that occurs on a particular day of the school year. Effective schools define professional development as a

central part of teaching and a precursor for student learning and achievement. In order for professional learning to occur, time must be allotted for this learning and it must be job-embedded for all teachers.

The Shift Toward Collaborative Professional Development

Student learning is ultimately dependent upon the knowledge and delivery of the teacher; therefore, public school administrators have begun a quest to offer more effective professional development opportunities for teachers. Based on the ineffectiveness of traditional learning experiences for educators, professional development reform is occurring throughout the United States (Hilliard, 2009; Lieberman and Mace, 2008). Often times, professional development is mandated and undertaken without taking into account the specific challenges a particular school and staff face. Joyner (2000) coined the phrase “drive-by” for this type of professional development. These one-shot events may or may not be connected to the school’s learning needs, but they often fail to deliver learning in a productive way for adults because they lack elements such as follow up, reflection, application, and feedback. Adult learning theory supports the need for teachers to experience professional development activities that allow them opportunities to apply, analyze, synthesize, and evaluate their learning. Coaching and other kinds of collaborative support need to be provided so teachers can transfer their learning into their daily practices. Joyner (2000) argued “instead of being consultant dependent, teachers and administrators can solve their own problems when they have a process that allows them to collaborate, engage in no-fault problem solving, and work for consensus solutions” (p. 385).

Bezzina (2006) pointed out that “two reform efforts, decentralization and teacher collaboration, seemed to coalesce by the 1990s to pave the way toward a new understanding

of leading and learning in schools” (p. 159). Wong (2006) wrote “decentralization has been a global phenomenon since the 1980s” (p. 17). Wong (2006) defined decentralization as the process in which power and decision-making authority is delegated from the central leadership to the subordinates of an organization. As a result of the decentralization of professional development, individuals within schools - administrators and teachers – have been able to make decisions about professional development needs that are school-based and specific to the student learning needs within their organizations. The decentralization of decision-making is also known as shared decision making. Supportive and shared leadership requires that all stakeholders are empowered by administrators to make decisions that affect the community (Hord, 1997). In a study conducted by Hipp and Huffman (2002), the researchers surmised that in schools where decision making is shared, “school administrators participate democratically with teachers by sharing power and authority, inviting input into decision making, and promoting and nurturing leadership among staff” (p. 29).

Evolution of the Learning Community

Some types of professional interaction have been linked to professionals feeling a strong sense of community. Developing or building a sense of community in schools leads to the shared goals and vision of the group. Vision is defined by Hord (1997) as a concept that leads to norms of behavior that have a primary focus on student learning and are supported by staff members. Yet simply declaring a vision and imposing it on staff members will not develop the energy and commitment needed by them to make substantive change. Huffman (2003) wrote the creation of a school vision, as an integral component of the change process, emerges over time and is based on common values and beliefs. When teachers and administrators determine shared goals and vision, the culture of the school begins to change.

This shift in thinking creates a focus experienced by staff and ultimately leads to the capacity to serve students most effectively (Boyer, 1995; Fullan, 1997). Peter Senge (1990) introduced a book entitled *The Fifth Discipline: The Art and Practice of the Learning Organization* that offered a description of learning organizations. The term learning organization moved into the educational arena at that time. Senge (1990) defined a learning organization as a structure “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3). Senge, Cambron-McCabe, Lucas, Smith, Dutton, and Kleiner (2000) identified five key disciplines of organizational learning: (a) personal mastery (articulating your personal vision and your current reality); (b) shared vision (a group’s common purpose and sense of commitment); (c) mental models (an awareness of attitudes and perceptions); (d) team learning (group interaction involving dialogue and skillful discussion that leads to an ability greater than the sum of individuals’ talents); and (e) systems thinking (the act of understanding interdependency and change). The Southwest Educational Development Laboratory (1997) reported that as “Senge’s paradigm shift was explored by educators and shared in educational journals, the label transitioned to learning communities” (p. 3).

In 2001, the National Staff Development Council revised their standards in such a way that the focus was directed to making teacher improvements that would result in improved learning for all students. The revised context standards closely aligned to several of Senge’s disciplines of organizational learning. The NSDC standards involved the following concepts for effective staff development: adults should be organized in learning communities whose goals are aligned with those of the school and district (teams meeting on

a regular basis to learn together and examine standards students are required to master, develop joint lessons, critique student work, and solve some of the common problems of teaching); skillful school and district leaders are needed to direct continual instructional improvement (provide adequate time for learning and collaboration while distributing leadership responsibilities among teachers and other employees), and staff development requires resources to support adult learning and collaboration (allot funding in various capacities and keep everyone's attention and learning on a small number of high priority goals). These standards have been used as a springboard for professional learning communities in many school districts and are currently under national review.

Professional Learning Community

The term *learning community* has become popular over the last decade and has come to mean a variety of things in schools. Learning community “is being used to mean any number of things, such as extending classroom practice into the community; bringing community personnel into the school to enhance the curriculum and learning tasks for students; or engaging students, teachers, and administrators simultaneously in learning” (SEDL, 1997, p. 1). Since educators incorporate specialized knowledge and focus on serving client needs, they are considered professionals. As a result, the concept of the learning community has evolved into professional learning community in the educational setting (Hellner, 2008).

Professional Learning Community Defined

Professional learning communities have many variations and definitions. The Annenberg Institute for School Reform (2000) explained the concept as “these professional learning communities provide opportunities for adults across a school system to learn and

think together about how to improve their practice in ways that lead to improved student achievement” (p. 2) Hord’s definition of a professional learning community or PLC is a group of professionals (teachers and administrators) who work and learn together, and act on what they learn to increase their instructional effectiveness for their students (Hord, 1997). DuFour’s definition of a professional learning community focuses on collaboration between professionals where the shift from teaching to learning is the focus. DuFour (2004) took the definition a step further by adding that professionals must continually “ask critical questions such as: 1) What do we want each student to learn? 2) How will we know when the student has learned it? and 3) What plan will we have in place when the students don’t learn?” (p. 21). Given, Kuh, LeeKeenan, Mardell, Redditt, and Twombly (2010) recognized that the kind of simple shift from a focus on teaching to a focus on learning has profound implications for schools. According to Burnett (2002),

a professional learning community is a school where people are united by a common purpose, shared vision, collective commitments, and specific, measurable goals; where collaborative teams engage in action research and collective inquiry into the big questions of teaching and learning; where continuous improvement cycles are built into the routine practices of the school; and where gathering evidence of student learning is a constant focus. (p. 52)

Huffman and Jacobson (2003) claimed “the professional learning community concept provides for stakeholders to engage collaboratively in dialogue to ensure school improvement and student achievement” (p. 239). Seashore, Anderson, and Riedel (2003) elaborated their framework for professional learning community with the following statement:

By using the term professional learning community we signify our interest not only in discrete acts of teacher sharing, but in the establishment of a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing, and focused on critically examining practice to improve student outcomes. The hypothesis is that what teachers do together outside the classroom can be as important as what they do inside in affecting school restructuring, teachers' professional development, and student learning. (p. 3)

According to these varying definitions, there appears to be a broad consensus suggesting a professional learning community is a group of individuals that continually questions their practice in a critical, collaborative, reflective, learner-oriented, growth promoting way (Mitchell & Sackney, 2000; Toole & Louis, 2002). Based on the literature, the overall goal of a professional learning community is to act as a collective group to mutually enhance each other's and pupils' learning.

Professional learning communities provide opportunities for professional staff to look deeply into the teaching and learning process and to learn how to become more effective in their work with students. The term "professional learning community" defines itself. Morrissey (2000) wrote,

A professional learning community is "a school that engages the entire group of *professionals* in coming together for *learning* within a supportive, self-created *community*. Teacher and administrator learning is more complex, deeper, and more fruitful in a social setting, where the participants can interact, test their ideas, challenge their inferences and interpretations, and process new information with each other. When one learns alone, the individual learner is the sole source of the new

information and ideas. When new ideas are processed in interaction with others, multiple sources of knowledge and expertise expand and test the new concepts as part of the learning experience. The professional learning community provides a setting that is richer and more stimulating.” (p. 3-4)

Professional learning communities share a variety of commonalities. Hord is credited with the interpretation of five characteristics and/or dimensions of professional learning communities that are interconnected and function together (Hord, 2004; Kruse, Louis, & Bryk, 1994).

The characteristics include having (a) shared and supportive leadership; (b) shared values and vision; (c) collective learning and reflective professional inquiry; (d) supportive conditions for collaboration; and (e) shared personal practice.

Shared leadership involves school administrators participating democratically with teachers “by sharing power and authority, inviting input into decision-making, and promoting and nurturing leadership among staff” (Hipp & Huffman, 2002, p. 9). When the leadership is shared, teachers feel a sense of autonomy and empowerment. Shared leadership plays an important role in the motivation of teachers and the quality of their teaching.

Having a shared sense of purpose and vision enables individuals to work productively as a group toward a common goal. In professional learning communities, this common goal is a relentless focus on all students’ learning. As a result, everyone makes a contribution. Staff members are encouraged to collectively undertake activities and reflection to constantly improve the performance of all the students.

Newmann and Wehlage (1995) wrote that teacher isolation is reduced when everyone takes collective responsibility for student learning and teachers feel more accountable for

their teaching practices and student achievement. When every person within the professional learning community shares this collective responsibility, staff members feel a deeper sense of commitment. Given, et al. (2010) supported shared responsibility as a means to dialogue about strategies to improve teaching and increase student learning.

Conversations about serious educational and learning issues are part of the continuous reflective dialogue in professional learning communities. Reflective professional inquiry includes conversations about the presentation of new curriculum. Teachers frequently examine each other's teaching practices. Teachers make observations in other teachers' classrooms and then discuss the practices they have observed and analyze what is likely to work in their own teaching environments (Newmann & Wehlage, 1995; Hipp & Huffman, 2002). School staff must take action to create high intellectual learning objectives. When they encounter problems, they must be able to develop solutions to address student needs. Reflective professional inquiry between teaching colleagues enables the group to develop these solutions.

Collaboration may be one of the most effective means of changing teacher practice, given the social nature of adult learning (Speck, 1996). Collaboration involves staff working together to solve problems and improve learning opportunities for students. DuFour and Eaker (1998) wrote "the basic structure of the professional learning community is a group of collaborative teams that share a common purpose" (p. 26). Learning from one another creates the capacity to improve communication, build strong relationships, and improve the group's ability to perform routine tasks effectively. While conflicts continue to exist within collaborative organizations, these conflicts are often managed more effectively in professional learning communities. Hargreaves (2003) noted "professional learning

communities demand that teachers develop grown-up norms in a grown-up profession – where difference, debate and disagreement are viewed as the foundation stones of improvement” (p. 163). To be successful, school conditions must support the group working as a professional learning organization. The tensions that often arise from the expectations to satisfy the sometimes conflicting needs of the group as well as the individual members can be managed. Given, et al. (2010) wrote how a staff manages the inherent tensions and develops trust is part of the ongoing experience of the group. Conversations about student work and teaching practices can open the door for teachers to take risks and ultimately improve their practices.

Continuous improvement and the search for a better way are characteristic of a professional learning community. Collective learning for every member of a professional learning community requires serious conversations about information and data that is interpreted communally and distributed among all members of the community. DuFour and Eaker (1998) reiterated

a professional learning community realizes that its efforts to develop shared mission, vision, and values; engage in collective inquiry; build collaborative teams; take action; and focus on continuous improvement must be assessed on the basis of results rather than intentions (p. 29).

Professional learning communities promote group, as well as individual, learning through peer reviews and feedback pertaining to teachers’ instructional practices; thus, individual and organizational capacities are increased.

Barriers within Professional Learning Communities

Teaching is a demanding profession, and the organizational structure of the school often leads to the teacher feeling a sense of isolation. Teachers are constantly being asked to do more with less (e.g., teach larger numbers of students, meet the academic needs of each student within the classroom, and increase test scores and student achievement); thus, the feeling of frustration is a common emotion for most educators. Darling-Hammond (1995) presented a similar conclusion when she wrote, “separated by their classrooms and packed teaching schedules, teachers rarely work or talk together about their teaching practices” (p. 172). Professional isolation stifles professional growth; therefore, positive interaction, collaboration, and a focus on adult and student learning are vital to improving schools.

Collaboration is a key component of a professional learning community. To facilitate a collaborative and collegial school environment, research suggests that the school needs to be organized in such a way that time for staff to meet and talk routinely is in place (Louis et al., 1994). Unfortunately, this task has proven to be difficult in many schools.

While time limitations have been noted as the most common inhibitors of effective professional development (Feist, 2003; Roberts & Pruitt, 2003; Zimmerman & May, 2003; Lohman, 2000), others do exist. Zimmerman and May (2003) suggested an inhibitor to effective professional development involves the delivery method. Often times, teachers are instructed through a lecture type delivery method. This delivery method fails to offer teachers the opportunity to apply their learning. Also, some learning experiences appear to be a piecemeal experience for faculty who may find it difficult to apply what they learn at a workshop when it does not really pertain to their work or subject area. When teachers work in isolation and do not have follow up training or support from other teachers or their

principals, the new instructional skill is often forgotten or it diminishes to the point that it is never implemented in the classroom (Feist, 2003; Zimmerman & May, 2003). Effective professional development needs to be relevant and offer opportunities for application and on-going coaching from peers and administrators.

A lack of proximity to department offices, technology, resources, and personnel who teach similar subjects and grades has been noted in Lohman's (2000) case study as an inhibitor. Such inhibiting factors prevented collaboration and planning among teachers and grade level teams within some schools. Roberts and Pruitt (2003) reminded educators that an important characteristic of professional development in the learning community is that it is collaborative. Roberts and Pruitt (2003) wrote, "it is through interactions among teachers that professional relationships are developed that encourage teachers to share ideas, learn from one another, and help out their colleagues" (p. 8). When teachers are unable to share resources and have conversations about their instructional practices, curriculum, teaching techniques, and student work, very little changes or improves in regard to student learning.

Lack of or limited funding has also been linked to inhibiting effective professional development in schools. Zimmerman's and May's (2003) research indicated that principals routinely find monetary issues a barrier to professional development. Principals find it difficult to pay qualified substitutes to cover classes while teachers work together during the school day. Teacher contract issues such as "paying teachers for professional days or parts of days, such as the hours worked by teachers beyond the contracted day on early release or late arrival days" create funding problems within schools as well (Zimmerman & May, 2003, p. 42). While professional development in a learning community is inextricably entwined with the job of teaching, limited funding often acts as a barrier to teachers' learning.

Sustainability

The professional learning community is one professional development model characterized by a number of core beliefs. First, continual learning of teachers is critical to improved student learning. Second, professional development is most effective when it is collaborative and collegial. Last, this collaborative work should involve inquiry and problem solving in authentic contexts of daily teaching practices. If concepts and core beliefs such as these are to be fully embraced, critical reflection must extend to consider the conditions and factors that promote and prevent these ideals from being institutionalized and sustained within schools. Attention to these elements will increase the chance of success in sustaining professional learning communities within schools.

Sustainability Defined

Sustainability is a complex concept to define and describe. In a research study highlighting the characteristics of sustainable school reforms, Birney and Reed (2009) provided the following definition:

Sustainability is about the relationship between people, their purpose and their place. It is about engaging, learning and leading to create a positive, empowering future for our children and their children. Sustainability as both a goal and practical activity is by its nature life-giving for communities, educators and the children and young people in their care; it brings life to learning and learning to life. (p. 3)

Brown and Spangler (2006) surmised that it typically takes four or five years for a change to become fully institutionalized and part of the system's culture. Taylor (2006) supported that sustainability refers to longevity and institutionalization refers to something becoming an established practice.

Education change theorists have long been concerned with the problem of how to move beyond the implementation phase of change when new ideas and practices are tried for the first time to the institutionalization phase when new practices are integrated into the culture of a school. School system leaders are wise to spend considerable time at the beginning of a reform initiative building an infrastructure that supports change over the long term. Discussions of sustainability of educational change repeat these traditional preoccupations with how to keep improvement going over time. It appears sustainability is more than a temporal matter. Sustainability concerns more than a reform's life and death. Hargreaves and Fink (2000) wrote, "Sustainability does not simply mean whether something can last. It addresses how particular initiatives can be developed without compromising the development of others in the surrounding environment, now and in the future" (p. 32). Hargreaves and Fink (2000) surmised that sustainability in educational and organizational change includes four key and interrelated characteristics: (a) improvement over time; (b) improvement that can be supported by available or achievable resources; (c) improvement that doesn't impact negatively on the surrounding educational environment; and (d) improvement that promotes diversity and capacity of a school's staff.

Furthermore, when one typically speaks of sustainability of a reform, one is typically interested in knowing whether the reform lasts over time and becomes an institutionalized feature of a school. Datnow (2001) wrote,

Although in dictionary terms, sustainability refers to longevity and institutionalization refers to something becoming an established practice, their definitions in the research literature are inextricably connected. For a reform to be sustained, it must become

institutionalized. So too, when a reform is institutionalized, it has been sustained over time (p. 4).

Taylor (2006) supports Datnow's view by defining sustained implementation of a reform as consistently demonstrating high levels of fidelity to the practices of a reform over time. This adds to the notion that not only must sustainability become part of the institutional culture, but it must adhere to high levels of fidelity of implementation.

Sustaining Professional Development Reform

Despite the belief that professional learning communities are a strong vehicle for continuous improvement, a roadmap for sustaining professional learning communities supported by research seems non-existent. Seashore (2008) wrote "after more than a decade of studying professional learning communities, I continue to be struck by the variety of ways in which they emerge – and by their fragility" (p. 55). Nevertheless, Hargreaves and Goodson (2006) suggested that research does exist supporting that almost all educational change efforts do not exceed a span of more than four or five years.

Professional learning communities differ from other educational reforms because they create improvements that last over time; utilize teamwork and dispersed leadership; and build the professional capacity to solve problems and make decisions expeditiously instead of acting as a "quick fix." Learning in the context of professional learning communities involves working together toward a common understanding of concepts and practices. The focus is not just on individual teacher's learning but on professional learning within the context of a cohesive group that focuses on collective knowledge and occurs within a context of mutual trust and learning.

Professional learning communities are typically linked to innovative schools. Giles and Hargreaves (2006) wrote that three factors classically contribute to the failed sustainability of innovative schools over time: (a) lack of support by fellow educators; (b) leadership changes, attrition of key faculty, changes in student body, and shifts in policy or district mandates; and (c) changes in external context such as reductions in resources and changing power relations between states and local school districts. Giles and Hargreaves (2006) conducted a four-year study and surmised from their findings that professional learning communities “seem to have the capacity to offset two of the three change forces that threaten the sustainability of innovative efforts” (p. 152). The researchers suggested that the professional learning community involve the community in the decision making process and develop a positive relationship with other schools in the district. Also, a school that operates as a professional learning community can learn how to manage attrition of change by “renewing their teacher cultures, distributing leadership, and planning for leadership succession” (Giles & Hargreaves, 2006, p. 152). Nevertheless, barriers like standardized reform agendas where entities such as state boards, politicians, or departments of public instruction legislate the teaching content and micromanage the process of learning to the degree that no time is left for teachers to be learners continues to be an obstacle in many schools (Giles & Hargreaves, 2006; Hargreaves & Goodson, 2006).

In 2003, Wood and Anderson conducted six case studies in an attempt to identify characteristics of successful professional development that was being sustained in schools. The original design of the project was to interview members of leadership teams at schools to find out their perceptions of the conditions in which professional learning communities thrive. From the six case studies, four main issues emerged. Wood and Anderson (2003)

presented that teachers in their first three to five years in the profession were more open to continuing professional development than more established teachers. Secondly, the researchers reported that despite experiencing time or resource barriers, if people were enthusiastic and desired continuous improvement in their performance, they would thrive in their continued professional development. Thirdly, interviews supported that a range of relationships are important to sustaining professional learning communities. Staff members expressed a strong commitment to one another and a willingness to work together for the benefit of all students. A supportive relationship with school leaders was identified as “the fundamental determinants of maintaining the professional learning community” (Wood & Anderson, 2003, p. 23). Lastly, a fourth condition referred to as a “culture of openness” was a necessary condition of maintaining the learning community. This culture advocated positive, non-threatening dialogue between students and staff, observation and critique of lessons, and reflection.

Characteristics of Sustainability

In a 2009 publication created by RMC Research Corporation under contact with the United States Department of Education titled, *Reading First Sustainability: Literature Review*, it was surmised after reviewing twenty-one documents published within the past five years that the key characteristics of sustainability are:

1. Sustainability is possible when full implementation of an initiative has been achieved.
2. Sustainability is based in the right organizational culture and leadership.
3. Sustainability always includes identification of critical elements of the education reform in question.

4. Sustainability requires continuing adaptation – not freezing a program in time.
5. Sustainability must be approached from a systems perspective.
6. Sustainability can and should be planned for and evaluated, and this should begin as early in the program life as possible.
7. Sustainability is only partly contingent on replacing funding (RMC, 2009, p. 4).

Culture and Sustainability

Research indicates a correlation between the shift in culture within a school to the sustainability of educational reform. When continuous learning becomes an expectation for a school's staff and a shift in culture occurs, sustainability of that new way of thinking is likely. Curry (1991) described the conditions for institutionalization as cultural because norms and values associated with the innovation are embraced by all members of the organization. Reform is considered institutionalized when it becomes a taken-for-granted feature of life in the school. Berman and McLaughlin (1974) support that institutionalization is the point when an innovative practice loses its 'special project' status. In a recent case study, Hipp, Huffman, Pankake, and Olivier (2008) examined how two schools - one elementary and one middle school - became sustainable professional learning communities. The researchers found that change that impacts learning must focus on instructional practice. Additionally, the study found that faculty members' attitudes and beliefs are more likely to change when they see the changes in practice begin to impact student learning. Hipp et al. (2008) wrote, "the process of reculturing schools as professional learning communities is a journey as evidenced by the time and energy exerted to move schools from one level to the next—from initiation to implementation to institutionalization or sustainability" (p. 192). Schools that encourage teacher leadership, define shared vision and values based on student

learning, and allow teachers and administrators to learn together are more likely to develop into sustained learning organizations that address the learning needs of their students and ensure learning occurs.

The culture of a school is one of the critical organizational components of a professional learning community. Researchers have begun to document the effectiveness of the professional learning community culture and indications have shown that it has a significant positive effect on student learning (Louis & Marks, 1998; Stoll et al., 2006; Wiley, 2001). Much of this effect depends on the existence of a school-wide capacity to focus on learning rather than teaching (DuFour, 2004). While individual components of a professional learning community culture have been present for more than 30 years, Bolam et al. (2006) found that a school-wide capacity to promote and sustain learning was too often missing. Bryk, Camburn, and Louis (1999) further argued that even when present, this learning capacity needed to be more focused on student achievement. As the measure of school success shifts from effective teaching to outcomes-based learning, teachers are required to revise their classroom instructional practices (Andrews & Lewis, 2007). Fullan (2001) described moving to a professional learning community as reculturing that “involves going from a situation of limited attention to assessment and pedagogy to a situation in which teachers and others routinely focus on these matters and make associated improvements” (p. 582). Morrissey (2000) similarly noted that unlike the past attempts to improve education, a professional learning community is not a package of skills or a short-term program to implement but an entirely new way for schools to function. The professional learning community requires significant shifts in the culture and thinking of schools in order for lasting change to be sustained.

Leadership and Sustainability

Most leaders want to do things that matter and that will make a lasting impact within the school in which they serve. Those same leaders desire to inspire others to work with them to leave a legacy once they have gone. Hargreaves' and Fink's study (2003) indicated key forces influencing change or continuity in the long term is leadership, leadership sustainability, and leadership succession. Leaders develop sustainability by how they approach, commit to, and protect deep learning within their schools. Leadership succession is letting go, moving on, and planning for one's own obsolescence. Sustainable leadership plans and prepares for succession, not as an afterthought, but from the first day of the leader's appointment. Leadership succession means more than grooming principals' successors. It means distributing leadership throughout the school's professional community (Spillane, Halverson & Drummone, 2001).

Williams (2006) reported that principals who are able to sustain school reform such as professional learning communities are open to a collaborative approach to leadership. Current school reform calls for higher achievement for all students; thus, the strategies being adopted to reach this goal require greater professional collaboration. This shift entails a different kind of leadership than that within the typical hierarchical organization. Professional learning communities require a leader that mobilizes teacher participation and shares both decision- making and accountability among educational stakeholders.

Leadership is an important organizational characteristic of a school. Bryk et al. (1999) recognized that principals play a key role in nurturing a climate that supports innovative professional activity. While principal leadership styles varied, the researchers believed it very unlikely that a professional community could be sustained without strong

principal support. Williams (2006) found that although principal leadership styles varied, most principals could adopt a collaborative style. Morrissey (2000), in a study of leadership capacity of principals, found that without identifying a shared focus for improvement, administrators could not guide their staff toward a collective vision for their students or their school. Morrissey also encouraged principals to communicate their belief in professional learning communities to all stakeholders and to create structures that ensured the sharing of leadership and decision-making. Stoll et al. (2006) reinforced this point by stating that principals need to distribute leadership by providing teachers with opportunities to take leadership roles related to teaching and learning.

Moore (2010) indicated a correlation does exist between the sustainability of the school's professional learning community and its leadership. This mixed-method study examined teacher perceptions of school leadership in two rural elementary schools in South Carolina. Interviews, focus group sessions, and a survey were used to determine to what extent instructional leadership practices impact the implementation and sustainability of a professional learning community within a rural school system. A strong correlation was found between leadership and the implementation and sustainability of the schools' professional learning communities. The researcher reported school systems need administrative leadership who possess a strong commitment to success and an understanding of the PLC concepts to competently lead the school and sustain this model of school improvement.

Leaders within a professional learning community are charged with how to create and sustain a culture which nurtures trust and relationships; encourages collaboration and teamwork; teaches staff to take responsibility for their own learning, both formally and

informally; and prepares them for leadership roles. Riley and Stoll (2004) reported the school leader's role is to provide his/her teachers with plenty of opportunities to connect; create an environment where teachers feel safe to take risks and subject their own practice to serious scrutiny; and encourage a mind shift that the school is a site for adult learning; not just a place for the learning of children and young people.

Hargreaves and Fink (2003) also tied sustainability of school reforms to leadership. Most school leaders want to do things that matter and increase student achievement. Leaders want to inspire others to do things that matter and to leave a legacy once they have gone. Hargreaves and Fink (2003) wrote:

Leaders develop sustainability by how they approach, commit to and protect deep learning in their schools; by how they sustain themselves and others around them to promote and support that learning; by how they are able and encouraged to sustain themselves in doing so, so that they can persist with their vision and avoid burning out; by how they try to ensure the improvements they bring about last over time, especially after they have gone; by how they consider the impact of their leadership on schools around them; by how they promote and perpetuate diversity rather than standardized prescription in teaching and learning within their schools; and by how they pursue activist engagements within their environments. (p. 10)

One of the most significant events in the life of a school that is most likely to bring about sizeable shift in direction is a change of leadership; nevertheless, little is written about the impact of principal turnover on school improvement, reform efforts, and sustainability. Hargreaves and Goodson (2006) wrote the changes of leaders and leadership most directly and dramatically provoke change in individual schools. The 2006 study also evidenced the

most successful instances of succession occurred when insiders were groomed to follow their leader's footsteps and furthered their achievements within the culture of the school.

Hargreaves and Fink (2003) suggested it is important that present leadership nurtures, cultivates, and whenever possible, appoints a successor who has been groomed from within. This allows for present leadership to control the selection process, maintain continuity, and secure success of the initiative over time. Hargreaves' and Goodson's five-year study (2006) evidenced few things succeed less than leadership succession when it comes to sustainability of school reforms. In general, successions are poorly planned. Leadership successions are more a reaction to events because change occurs rapidly within the educational environment. Promotions, transfers, and retirements bring about rapid leadership change without a thoughtful attempt to create sustainable improvement that stretches beyond individual leaders.

The change force of leadership succession has become intensified by the fast pace and frequency of principal successions themselves. Hargreaves and Goodson (2006) wrote "the rapid demographic turnover of leaders as the baby boomer generation retires, a rush to early retirement precipitated by standardized reform pressures, and increasing pressures on school districts to bring about rapid improvements in underperforming schools is creating instability and non-sustainability in school leadership" (p. 20). In order for a principal to be deemed an accepted and trusted "insider", he must lead in that school for a number of years. In the accelerating exodus of principal succession, principals rotate through schools and teachers become resistant to change (MacMillan, 2000).

Factors of Sustainability in a Professional Learning Community

Hipp, Huffman, Pankake, and Olivier (2008) conducted research to determine how a school becomes a sustainable professional learning community. Their study was an extension of a five-year study of the development of professional learning communities. The research concluded that one elementary school had been able to perpetuate the learning community because it was a learning family unit (committed to self and student learning); extremely focused on moral purpose (student learning); demonstrated teamwork and shared responsibility; functioned as a collaborative and professional culture; and possessed inclusive leadership. The middle school that sustained its professional learning community possessed the following threads: (a) a culture and climate that had been a long time in the making, (b) open communication and trust, (c) common focus on student and life-long learning, (d) a supportive central office, (e) strong leadership, (f) leadership shared at many levels, (g) commitment to student success, (h) leadership perceived as both positions and actions, and (i) a staff that was glad they worked at the school. Hipp, et al. (2008) found commonalities in their research between the two schools that were able to sustain their professional learning communities. Those commonalities include a strong tie to culture, leadership, life-long learning, teamwork, and collaboration.

Barriers to Sustainability in a Professional Learning Community

It appears a gap exists between the eloquence of the professional learning community model on paper and its messiness in practice. Leonard and Leonard (2005) concluded that despite concerted collaborative efforts and voluminous school improvement literature attesting to professional learning community merits, the attainment of full and sustainable culture of collaborative teaching and learning has experienced “limited success” due to the

ways jealousy, competition, and politics in schools and districts undermine promising school improvements. Servage (2008) found the barriers to the sustainability of the professional learning community pertained to the dissent and resistance of the professionals within the school. This study revealed the problems that often stymie effective collaboration within learning organizations are, at least in part, the terribly human kind. To some, the collaborative endeavor of the professional learning community is threatening because teachers are asked to lay bare their assumptions, strengths, and weaknesses before their colleagues. Servage (2008) contended teachers must undergo profound personal change through open-ended conversations oriented to transformed learning in order for trust to be established and learning to be continuous.

Kilbane's (2009) study of four schools functioning as professional learning communities after they participated in a four-year comprehensive school reform effort reported that the omission of collaborative structures; time to collaborate and learn together; and lack of leadership to provide necessary resources for individual and schoolwide inquiries jeopardized the sustainability of the professional learning community. The study reiterated that leadership and administrative support play a more critical role in sustainability than other factors due to the concentration of power and decision making systems in a school. The system of relationships or culture in a school can support or hinder change initiatives within a school; thus, both can serve as barriers in an environment lacking leadership. A school leader's attention to these factors can increase the chance of survival and success in building and maintaining a professional learning community within a school (Kilbane, 2009).

In 2003, Stoll, McMahon, Wallace, Thomas, Hawkey, and Smith conducted a study at the University of Bristol and Bath using a longitudinal mixed methodological research design

to explore the different stages of professional learning communities. The study identified the following essential conditions: sufficient funding, useful learning opportunities, supportive culture, adequate time, supportive leadership, developing a vision or purpose, staff commitment, and collaboration. The role of school leaders in creating and sustaining these conditions is critical. Aside from the factors for creating and sustaining professional learning communities, the research also identified the following barriers to creating a professional learning community: financial barriers, insufficient time, stress and general work overload, resistance, lack of trust, and the omission of vision or purpose. Leaders desiring to create and sustain professional learning communities must be able and willing to address these barriers (Stoll et al., 2003).

In the 2008 study conducted by Williams, Brien, Sprague, and Sullivan the researchers contended that another important barrier to implementing and sustaining a professional learning community lies in the failure to consider the context at all three levels of the system – schools, districts, and departments of education. These researchers support the argument that it is unreasonable to expect schools to become professional learning communities while the districts and state departments continue to operate solely as separate organizations. Fullan (2006) supported this reasoning by stating, “If you want to change systems, you need to increase the amount of purposeful interaction between and among individuals within and across the tri-levels” (p. 116). In light of these findings, it is imperative to gain the support of the district and higher entities such as the Department of Public Instruction to develop greater program coherence and sustain the professional learning communities that have been implemented in schools.

Strategies for Sustaining a Professional Learning Community

In the continuum of approaches for implementing professional learning communities, educators need to be mindful of strategies that can be used to sustain this model of professional development. The decision to adopt the professional learning community approach to school reform is only the first and arguably the easiest step in the improvement process. Determining the key strategies for the sustainability of professional learning communities will release the true potential of collaborative working arrangements within schools and produce an improved educational system for all children.

Bennett (2010) conducted a mixed-methods study in Minnesota to identify strategies used by administrators and teachers within sustained professional learning communities. The perceptions of 37 elementary classroom teachers and three teacher coaches from three rural public schools in one district indicated five areas that sustain professional learning communities in their schools: collaboration, supportive conditions, supportive leadership, relationships, and a focus on student learning. The strategies implemented to sustain the professional learning community in each of these schools was to allot specific time within the school day for teachers and coaches to collaborate and build collegial relationships while working together to discuss learning objectives and student work, and to provide support through distributed leadership. This supportive leadership was evidenced within the district and each of the schools. Maynor's (2010) findings also indicated some specific strategies being implemented to sustain professional learning communities in North Carolina. While this study was focused on linking the principals' leadership to the sustainability of professional learning communities and increased student achievement, some commonalities to Bennett's (2010) findings were prominent. The strategies noted in the findings of Maynor's

(2010) study included support from the district level; non-negotiable participation in the professional learning communities; distributed leadership between the principals, teachers, and instructional coaches; the development of schedules that incorporated routine planning time and collaboration between teachers and instructional coaches during the school day; and the development of specific instructional practices that focused on improvement in the areas of reading and math.

The longevity of successful initiatives such as professional learning communities is in question in many schools and districts throughout the nation at present. Recent studies (Bennett, 2010; Maynor, 2010) have evidenced that professional learning communities can be sustained; however, research is limited as to whether the specific strategies used within the schools were implemented to overcome precise barriers within those specific professional learning communities. Since that gap exists, it is difficult to determine the exact role these strategies actually played in the sustainability of the professional learning communities. This study is designed to address that gap.

Theoretical and Conceptual Framework

According to Denzin and Lincoln (1998), the framework for a study is created in how the “researcher approaches the world with a set of ideas, a framework that specifies a set of questions that he or she then examines in specific ways” (p. 30). Maxwell (2005) supported “the most important thing to understand about the conceptual framework is that it is primarily a conception or model of what is out there to study, and of what is going on with these things and why – a tentative theory of the phenomena that is being investigated” (p. 33). In light of this definition, the researcher will consider multiple perspectives in an attempt to explain the sustainability of a professional learning community. Accordingly, it is necessary to first

discuss the theoretical framework that will inform the methods from which to investigate the research questions.

Creating a framework explaining how adults learn will assist educators in developing more appropriate and effective professional development opportunities for teachers. A constructivist perspective will be the epistemology for this study. Constructivism has become a leading theoretical position in education (Tobin & Tippins, 1993). This view of learning has an important effect on the development of teaching and learning approaches that focus on students' understanding. The main tenet of constructivism is that the learner constructs his own knowledge by anchoring new information to pre-existing knowledge. Hoover (1996) wrote that constructivism's central idea is that human learning is constructed or built upon the foundation of previous learning. Paul (2005) wrote the overriding principles of the constructivist model extend that the exercise of learning involves seeking meaning within one's frame of reference and expanding the base of knowledge by comparing it to the concept of other people. The epistemology of the constructivist perspectives defines knowledge as a "dynamic product of the interactive work of the mind made manifest in social practices and institutions" (Paul, 2005, p. 47). The philosophical foundations of a professional learning community support the premises of a constructivist model through characteristics such as being professional development that is learner-centered, and the construction of new knowledge for teachers is interactive, inductive, and collaborative. In professional learning communities, teachers must have the opportunity to reflect upon and develop a framework for the foundation of knowledge that will be presented to their students. Professional learning communities provide a forum by which the construction of knowledge for teachers can occur through a continuous cycle of learning rooted in reflection, social

collegial interaction, and professional dialogue (Hord, 1997). The understanding of knowledge within the context of a professional learning community is constructed through relevant and meaningful connections among teachers within the school setting.

There are various adult learning theories that prescribe how teachers learn, construct, and process the information that is needed to expand their knowledge base. The one most closely aligned with professional learning communities is the sociocultural learning theory. This theoretical concept will be examined for the content of this study.

Sociocultural learning theory defines learners as active constructors of knowledge through social interaction. Based on the works of Wells (2001), “knowledge is constructed and reconstructed between participants in specific situations, using cultural resources at their disposal, as they work toward the collaborative achievement of goals that emerge in the course of their activity” (p. 180). Wells (2001) provides further detail that this construction of knowledge emerges as participants “are engaged in meaning making with others in an attempt to extend and transform their collective understanding with respect to some aspect of jointly undertaken activity” (p. 84). Through this process of enculturation, individuals are able to develop their own understanding of information through their interaction with others, transform and develop ownership of that thinking in the context of their own work, share new learning through conversations or demonstration, and transform current practices. The very premise of a professional learning community is dependent upon the acquisition of knowledge through social interaction and professional dialogue.

The framework for sociocultural learning theory is grounded in the work of Vygotsky (1978). For Vygotsky, human thinking develops through the mediation of others and stems from the interdependence between the social and individual processes of learning. The idea

of scaffolding was identified in Vygotsky's work. Scaffolding implies that people learn at a much higher level when support for their learning gap is provided through peer interaction. This collaborative support allows the learner to obtain information in a social environment, process that information on an individual level, and then contribute to a collective cultural change. Morrow (2010) implied an essential element for success when using a collaborative process of learning is active participation. All participants must be actively engaged in the process of learning so they will be able to construct their own understanding of the information presented (Vygotsky, 1978). The collaborative and collegial spirit of a professional learning community is the foundation that promotes the continuous cycle of learning for teachers. Learning within this context of professional interaction expands and constantly changes the knowledge base of teachers.

The structural framework for a professional learning community answers the need for ongoing professional growth. Frameworks are purposefully structured to help focus attention on the characteristics of teaching and learning that are salient to each individual theory. The model the researcher will use to construct the conceptual framework for the study will focus on a theoretical lens called the Vygotsky Space. This model will be used to explain the connections between individual learning, organizational change, and the sustainability of a learning community. Sociocultural theories of learning and a conceptual framework originally described by Harre (1984) explores how schools can transform individual learning experiences into collective sources of knowledge, thereby supporting and sustaining organizational change.

The Vygotsky Space is used to clarify how collective events such as district wide initiatives or the implementation of a new program serve as instances for the introduction of

new ideas about pedagogy and/or instructional practices called conventionalization (Quadrant I). The new concepts and practices discussed at these public events are subsequently assimilated and interpreted by individual professionals (central office personnel, school principals, coaches, teachers), which is a process that the model refers to as application (Quadrant II). Practitioners may have various reactions to these new ideas. Some might readily “try on” these new practices; others might question or even reject them. However, in some cases professionals’ attempts to take up a new ideals or material tools presented in the public arena create what Engestrom (2001) referred to as “disturbances” to existing practices. These situations constitute sites for individual learning and innovation, which is a process called transformation of existing ideas and practices (Quadrant III). These transformed ideas and practices are demonstrated or discussed by individual professionals – either in small groups that share aspects of responsibility for practice or in more formal settings such as demonstration lessons arranged for groups of educators – then the learning cycle connects to a larger collectivity or learning organization (PLC) referenced in the model as publication (Quadrant IV). Whether such public demonstration of learning and change stays at the individual, small group level, or results in broader institutionalized change may depend on many factors (Gallucci, 2007). If new learning is instantiated at a “system” level (whether at a grade level, school level, or at a district level), then these new ideas and practices may function as a new set of conventions for practice (back to Quadrant I).

As demonstrated in the conceptual model, learning within a professional learning community is a continuous, cyclical process. Through understanding and application of learning theories such as sociocultural learning, more sound and sustainable professional development can be designed for teachers. The factors needed to support and sustain

professional learning communities involve leadership, time to collaborate and learn at a social level, and a cultural shift for staff members. (see Figure 1.)

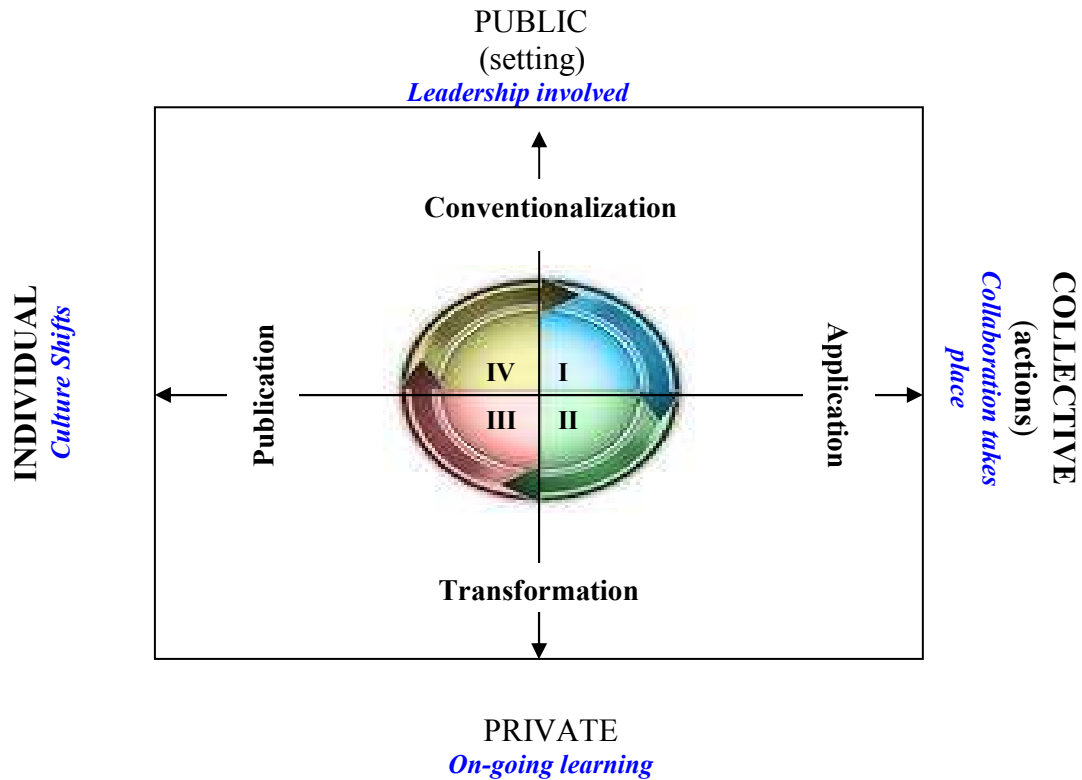


Figure 1. The Vygotsky Space This figure illustrates the cyclical process of the professional learning community.

Source. Adapted from Gavelek and Raphael, 1996; Harre, 1984; McVee, Dunsmore & Gavelek, 2005.

Chapter Two explored the literature on the foundation of teacher learning, professional development reform, and the definition, emergence, and sustainability of the professional learning community. Based on the literature review, professional learning communities can be sustained through the utilization of specific strategies. The chapters that follow will describe the research design, findings, and conclusions from this study.

CHAPTER 3

METHODOLOGY

The purpose of this study was to examine how a professional learning community can be sustained in a rural elementary school setting. Specifically, the study was used to describe the culture of a school that creates conditions where sustainability has occurred, determine the role leadership plays in supporting these conditions for sustainability, and ascertain any long-range effects on teacher practice through the change in culture that results in the sustainability of a professional learning community. The following research questions served as a guide for data collection and analysis:

1. What is the culture of a school that creates conditions for sustainability of a professional learning community?
2. What is the role of leadership in supporting these conditions?
3. What, if any, are the long range effects on teacher practice through the change in culture that results in sustainability?

Understanding more about the sustainability of a professional learning community will be helpful to educators who are currently involved in this type of professional setting because it is only natural to ask oneself how to maintain and perpetuate effective professional development. In addition, this research adds to the relatively small body of research literature that has examined how a professional learning community is sustained after implementation.

Design

The focus of this study was contingent upon the willingness and openness of the participants to share their beliefs and thoughts as they pertain to the sustainability of a professional learning community. Therefore, multiple and varied opportunities for

conversations were provided in order for the participants to develop a level of trust and comfort that promoted a willingness to share honest perceptions of their experiences in a professional learning community. DeMarrais and Lapan (2004) clearly state, “research is a series of negotiated acts, dependent upon language that results in shared knowledge” (p. 89).

Because the intent of this study was to gather data that provided an in-depth look into the sustainability of a professional learning community in a rural elementary setting, it was critical to use a case study approach. A case study approach yielded the best results because the study addressed observation and concepts about social action and social structures in natural settings that were studied close at hand. A case study also provided information from a number of sources over a period of time that permitted a holistic study of complex social networks and of intricate social action and social meanings. The researcher sought opportunities to capture individuals as they experienced their natural, everyday circumstances in hopes of finding an explanation for and better understanding of the larger social complexes of the staff members, their actions, and motives for sustaining their professional learning community. A case study permitted the researcher to examine not only the complex life in which the teachers are implicated, but also the impact of beliefs and decisions of the multifaceted web of social interactions that played a role in this sustainability (Feagin, Orum, & Sjoberg, 1991).

Definitions of case study vary widely (Lincoln & Guba, 1985; Merriam, 1988, 1991). Nevertheless, Creswell (2003) defined case study as an exploration of a program, event, activity, process, or one or more individuals. The case can be bound by type and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time (Creswell, 2005; Stake, 1995). Six components of case study

research have been found in the literature. First, case study research concentrates on how people make sense of their lives (Merriam, 1988). Secondly, according to Guba and Lincoln (1981), case study research involves the establishment of boundaries by the researcher relative to the questions to be asked or the problems to be studied. Geertz (1973) wrote that case study research acknowledges that the unit or entity studied is seen in the larger context in which it exists. Yin (1994) supported that the case cannot really be separated from the context. Next, Adelman, Jenkins, and Kemmis (1983), proposed the case is an example or instance drawn from a larger class or group where the boundaries have a common sense obviousness. Davey (1991) explained that case study research usually involves an in-depth and longitudinal examination of a single entity. Lastly, case study research is a process that “describes and analyzes some entity in qualitative, complex, and comprehensive terms not infrequently as it unfolds over a period of time” (Wilson, 1979, p. 448). Merriam (1991) captured the essence of these concepts in her definition of case study research – “an intensive, holistic description and analysis of a phenomenon or social unit” (p. 21). Since detailed data was collected from a particular setting, the case study design was utilized. By utilizing a single setting, the researcher was able to more deeply understand how a professional learning community is sustained because I was able to intently focus on the phenomenon in question.

Because the sustainability of a professional learning community was the focus of the data collection, the research design had to be flexible enough to allow for emerging themes and concepts that evolved through the process of collection, analysis, and interpretation of data from the studied phenomenon. Strauss and Corbin (1990) define grounded theory as follows:

Grounded theory is one that is inductively derived from the study of the phenomenon it represents. This is, it is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon.

Therefore, data collection, analysis and theory stand in reciprocal relationship with each other. One does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge. (p. 23)

The researcher implemented a grounded theory design to study the process of sustaining a professional learning community because the researcher's theories for sustainability needed to emerge from the concepts that were discovered from the data that was collected. Creswell (2005) defined grounded theory design as "a systematic, qualitative procedure used to generate a theory that explains, at a broad conceptual level, a process, an action, or interaction about a substantive topic" (p. 396). Grounded theory research is a "process" theory that explains an educational process of events, activities, actions, and interactions that occur over time. The researcher designed processes to collect data, identify categories, connect the categories, and form a theory that explained how a professional learning community has been sustained in a rural, elementary school setting.

The researcher applied a constructivist approach to the grounded theory design also. "In applying this approach, a grounded theorist explains the feelings of individuals as they experience a phenomenon or process" (Creswell, 2005, p. 402). Creswell (2005) explains that "grounded theorists might explore a single idea; however, they more frequently examine a process because the social world that we live in involves people interacting with other people" (p. 404). The researcher presented one school's success in sustaining a professional learning community for a minimum of three years.

Role of the Researcher

Due to the qualitative nature of this study, the researcher assumed an integral role in the research process. Before beginning the interview procedures, she made initial contact with the school's participants explaining the intent of the research and the specific areas of focus for this study. The participants had the opportunity to ask questions about the purpose and methods of the study before they agreed to proceed with the interviews.

The researcher made every effort to report the findings without bias. However, having worked as a principal in an elementary school where a professional learning community had been successfully implemented and sustained for more than five years, the researcher began the study with previous knowledge about participating in and perpetuating a professional learning community.

Ethical Issues

Ethical issues in qualitative research are related to the characteristics of qualitative or field methodology which usually include long-term and close personal involvement, interviewing, and participant observation. The first step to avoid ethical issues in this project was to seek permission to conduct the study. Permission was granted by the Institutional Review Boards at the university and district levels. This research study protected the interviewees' confidentiality throughout the interview and publication process. The interviewees retained the right to refuse to participate or to answer specific questions, and, if deemed necessary, to stop the interview at any time they did not feel comfortable proceeding further. Interviewees signed a Consent Form before being interviewed to ensure they understood their rights. A copy of the Consent Form was included in Appendix D. At the conclusion of each interview, all of the participants received a copy of the signed Consent

Form in the event they had questions following their interviews. In an effort to protect confidentiality, this study identified the school in the case study as “PLC Elementary School” and the school district as “Region Seven School District.”

Site Selection

As a means of convenience and utilization of the researcher’s knowledge of the educational system in North Carolina, the research study involved the selection of an elementary school within western North Carolina that had been operating as professional learning communities for a minimum of three years. At the onset of the study, the researcher emailed a letter to fifteen superintendents in a rural region of North Carolina requesting permission to survey the elementary principals within their school systems (Appendix A). This initial solicitation for permission was necessary to prevent any kind of ethical issues involved in conducting research in these school systems.

Six of the superintendents contacted granted permission to survey the elementary school principals within their school systems. The researcher used the Professional Learning Community Assessment - Revised (PLCA-R) designed by Hipp and Huffman (2010) to determine the longevity of the professional learning communities and whether or not the schools adhered to the five identifying attributes of a professional learning community. These attributes include; Supportive and Shared Leadership, Shared Values and Vision, Supportive Conditions, Collective Learning and Application, and Shared Personal Practice. To avoid copyright issues, the researcher asked permission to use the assessment. Dr. Diane Olivier, a research colleague of the authors designated to respond to requests for the use of the instrument, granted permission (Appendix B) and a copy of the assessment has been included (Appendix C.) According to Hipp and Huffman (2003), the original PLCA’s reliability was

tested using the Cronach's Coefficient Alpha and was determined to maintain a high level of internal consistency with a coefficient span from .83 to .93. The original assessment consisted of 45 questions. The developers of the assessment later determined that one important aspect of professional learning communities was omitted from the original instrument. The omission included the collection, interpretation, and use of data to focus improvement efforts (Hipp and Huffman, 2010). Seven additional questions were added to the assessment after being validated through the Expert Opinion Questionnaire. The revised assessment consisted of 52 questions. This particular instrument had been validated with contributions from various researchers and experts in the field and study of professional learning communities.

The researcher uploaded the PLCA-R (Appendix C) onto Survey Monkey and emailed 46 principals serving in elementary schools within the western region of North Carolina with a request they complete the 52-question survey within a given timeframe of two weeks. Twenty of the principals responded that they were either newly appointed to the school and they didn't know enough about the school to complete the survey or that the school had not been operating as a professional learning community for a minimum of three years. Two principals indicated their schools met the criteria of the study and completed the PLCA-R. The researcher assigned a numeric value to each of the Likert scale responses (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) and she relied on the data analysis of the survey tool to tally each principal's responses. After determining the school that adhered to the greatest number of attributes of a professional learning community, she continued her research in that school. Gathering this data was a critical step in establishing

the research site. Also, this approach played a role in the credibility of the study since the research site needed to be established through means other than that of convenience.

Before attempting to conduct observations and interviews, the researcher's first priority was to gain the acceptance and trust of the participants. In her attempt to try to fully understand the school's professional learning community, the researcher spent one day at the school gathering documents, touring the school, meeting staff members, and visiting classrooms before inviting any teachers to participate in the study. During this time, the researcher also explained the purpose and significance of the study. This process enabled the researcher to become familiar with the participants and their teaching assignments and to become more familiar with the layout of the building. The visit also encouraged the participants to feel more comfortable and confident about the researcher's intentions to interact with them.

Participant Selection

After the research site was determined, the researcher asked the principal to submit names of teachers who had been active participants in the professional learning community for a minimum of one year. The principal provided the names of 33 teachers eligible to participate in the study. Since the researcher could not anticipate the actual size of the eligible pool of participants prior to determining the site, research plans had been granted by the Institutional Review Board to invite 12 teachers to participate in the study. The researcher invited 12 teachers that had been randomly chosen from the list of 33 to participate. Eight teachers consented to be a part of the study. The other four potential participants did not return consent forms to the researcher.

Setting of the Study

The site selected for the study was PLC Elementary School (pseudonym). Based on the researcher's initial survey of the principal, the school is in its fourth year of implementation as a professional learning community. The school serves approximately 700 students in pre- kindergarten through sixth grades. Roughly, 47% of the student population receives free and reduced lunches. Approximately 83% of the student body is Caucasian, 9% Hispanic, 4% black, 3% Asian, and 1% multi-racial. About 8% of the student body receives support through Exceptional Children's services, 7% receive English as a Second Language instruction, 5% receive enrichment through the Academically and Intellectually Gifted program, and 2% receive services from the speech pathologist.

PLC Elementary School has been identified as a School of Distinction and made high growth on the North Carolina End of Grade Test with 82.4 % of the students performing on or above grade level. The majority of the teachers (60%) at PLC Elementary School have ten or more years experience and the teacher turnover rate is 11% which is slightly higher than the state's average (10%).

Methods of Data Collection

Focus Groups

Focus groups were used at the onset of the study. Litoselliti (2003) defined focus groups as being "small structured groups with selected participants, normally led by a moderator" (p. 1). Focus groups were used in an effort to explore identified topics and gain insight to participants' views and experiences through the group interaction. Morgan (1997) urged that focus groups create the "ability to collect a concentrated set of interaction in a very short span of time" (p. 9).

The use of focus groups was appropriate for the initial contact in the study because they created a forum of openness that granted teachers “permission” to share their insight into the sustainability of the professional learning community. The focused setting allowed the teachers the opportunity to gather and discuss educational issues with their colleagues. The focus groups also provided a non-threatening setting and promoted the opportunity for teachers to share their perceptions in an unbiased atmosphere.

Two focus group sessions were conducted at the selected school site. As recommended by Morgan (1997), each focus group consisted of four participants. The sessions lasted approximately 90 minutes in length. The setting for the focus groups was determined by the principal since the researcher had limited knowledge of the building and she needed a location where teachers would be less likely to be disturbed or distracted. These sessions were held in the school’s “data room”. Prior to the start of each focus group, guidelines (Appendix E) were established by the moderator. Questions for the focus group discussion (Appendix E) were designed to focus the discussion on the sustainability of the school’s professional learning community. Because it was important to gain in-depth information in such a setting, only eight questions (Appendix E) were developed for the focus group interaction. These questions were developed based on Hord’s (1997) five dimensions of a professional learning community. The researcher used focus groups to initially explore issues about the professional learning community and later sought expanded information through individual interviews pertaining to the sustainability of the professional learning community. The information obtained from the focus group discussions was used to guide the individual interviews. All focus group discussions were recorded by audio

equipment. The recordings were then submitted to an outside party who was responsible for transcribing all of the recorded conversations.

Because the researcher felt it was important to be present during the focus group discussions, she served as the moderator for both groups. This level of involvement also allowed the researcher the opportunity to adequately probe after the initial questions were discussed. Because teachers are often cautious to reveal their “true” feelings to administrators, the researcher only identified herself as a doctoral student.

Individual Interviews

While one-on-one interviews were the most time consuming and costly approach to this study, they proved to be an effective way to address the research questions and were well suited for the individuals who were not hesitant to speak, could articulate their thoughts clearly, and were comfortable sharing their ideas (Creswell, 2005). Over the course of the interview process, the intent of the researcher was to gain a grasp of the school’s day-to-day operations, instructional philosophy, professional learning opportunities, climate, leadership, and culture. Although using a set of predetermined questions (Appendix F) and based on Hord’s (1997) five attributes of a professional learning community. Due to the decline of two participants to continue in the study, interviews at the school included six teachers who initially participated in the focus group discussions. All interviews were individual, and each participant was only interviewed once. The average interview lasted approximately 45 minutes. The open-ended nature of the questions encouraged participants to freely share their ideas, providing an opportunity to explore the central phenomenon of interest for recurring themes, without limiting the responses of the respondents.

Observations

Observational evidence is often extremely helpful and provides additional information about the topic being studied (Yin, 1994). The research for this study afforded access to the professional learning community's groups at the school for three grade levels and it offered the opportunity to perceive reality through the eyes of the participants in the case study. It is this opportunity that Yin (1994) believed is invaluable in producing a precise depiction of the case study phenomenon. The researcher was hopeful direct observations of professional learning community groups and grade level planning sessions would corroborate and complement evidence from other sources about the culture and collaboration within professional learning communities. Keeping direct observation notes, logs, and a calendar separate from other data sources allowed the researcher to review and analyze this information separately. These observation notes also provided support for the themes that emerge from the interview data.

Document Review

Documents also play an important role in the data collection process when conducting a case study (Yin, 1994). The systematic search for pertinent documents is a critical component of any data collection plan. Before beginning one-on-one interviews, the researcher obtained permission to access pertinent documents from the principal at the school. Working closely with the principal, the researcher scheduled the retrieval of a variety of documents independent of other data collection activities (Yin, 1994). She reviewed professional learning community minutes, logs, and recording sheets; staff meeting agendas; the school's master schedule; data notebooks, and the school's Improvement Plan. Depending upon the nature of the documents and the feasibility of copying them, some

documents were analyzed on-site or copied and saved in a separate data folder. The school's website provided other documents such as the school's mission statement, shared values, and high student performance goals. These documents provided clarification as well as support for the accuracy of the data interpretation.

Data Collection

During initial data collection, when the main categories were emerging, a deep coverage of the data was necessary. Subsequently, theoretical sampling required only collecting data on categories for the development of properties and propositions. The criterion for judging when to stop theoretical sampling was when theoretical saturation was reached in each category. By this term Glaser and Strauss (1967) refer to the situation in which:

“No additional data are being found whereby the researcher can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated. When one category is saturated, nothing remains but to go on to new groups for data on other categories, and attempt to saturate these categories also” (p. 65.)

Not all categories were equally relevant in the study, and accordingly the depth of inquiry into each one was not the same. As a general rule, core categories, those with the greatest explanatory power, were saturated as completely as possible. A theory was deemed saturated when it was stable in the face of new data and rich in detail. The general rule when building theory was to gather data until each category was saturated (Glaser and Strauss, 1967).

According to Strauss and Corbin (1998), this means until (a) no new or relevant data seem to emerge regarding a category, (b) the category is well developed in terms of its properties and

dimensions demonstrating variation, and (c) the relationships among categories are well established and validated (p. 212). Theoretical saturation was of great importance. While reviewing field notes and interview transcripts the researcher noted she kept hearing the same words, phrases, and concepts regardless of the transcript or document being reviewed. Unless a researcher gathers data until all categories are saturated, the theory will be unevenly developed and lacking density and precision. When it was apparent no new concepts or themes were emerging, the researcher's data collection was complete.

Procedures

The researcher recorded the focus group discussions and individual interviews with two digital voice recorders, following the prepared questions to guide the discussions and to redirect when the participants and interviewees became sidetracked. Tape recorders do not record nonverbal communication in the group that is important for knowing group consensus and disagreement on a particular point; therefore the researcher recorded important information during the focus group discussions by taking careful notes of what the tape recorder did not pick up such as nonverbal reactions of other participants after a participant made a statement. Field notes were taken during the interviews and provided additional data in the form of Observer Comments (OC) about themes, ideas, and areas of further interest. Each interviewee's voice recording was downloaded onto a laptop computer, checked for audio clarity, and transcribed by a third party. Teachers were given an opportunity to review their own transcripts in order to ensure accuracy. The researcher also reviewed the transcripts for accuracy prior to ensure the comments made sense before the coding process began.

Notes from field observations and written documents were recorded in a separate notebook. The researcher wrote notes as she made observations and she made notes in the

margins or highlighted key passages as she reviewed documents. The field notes included an account of events, how people behaved and reacted, what was said in conversation, where people were positioned in relationship to one another, their comings and goings, physical gestures, the researcher's subjective responses to what she observed, and all other details and observations necessary to make the story of the participant observations and document review experiences complete.

Coding and Data Analysis

Once all of the data had been collected, the data analysis process began. As Yin (1994) suggests, the manipulation of the data must be done carefully to avoid biasing the results. Ultimately, the goal was to treat the evidence fairly, to construct convincing analytic conclusions, and to rule out alternative interpretations (Yin, 1994).

Through the use of grounded theory, a systematic process for analysis of the data started with the generation of categories and themes. The researcher worked to ensure the process of data analysis was reliable and valid through the generation of these categories and themes. All concepts that emerged at the beginning of the process were considered provisional categories.

The audio recordings of the interviews were listened to numerous times and the themes that emerged from every interview were listed. The transcribed notes were read multiple times and recurring themes were documented. Reading the transcriptions and listening to the recordings multiple times assisted in assuring the language depicted in both were accurate. The voice inflections and tones of the interviewees helped capture the meanings of the phrases and words used by the participants when they described how their professional learning community had been sustained. The researcher also looked at field

notes from the document reviews and observations to determine indicators of categories and themes in specific events of the school, written evidences, and in the behaviors of the faculty observed. Perusal of the data for emerging themes and categories was followed by a revision of those themes and categories. This process was repeated with every round of data analysis. Concepts became part of the grounded theory when they were repeated in multiple interviews, documents, and in the participant observations.

All field notes and emerging themes were documented in a digital format on the computer. As themes emerged from the analysis, an individual list was created for every individual interview, focus group session, observation, and document review. Participants' phrases, words, and actions were placed under corresponding themes after the transcribed notes and recordings were reviewed multiple times. All information was digitally cut and pasted to ensure accuracy and to increase the validity of the process.

Once the overriding themes emerged from the various data collection methods, coding techniques were implemented to organize the data from the analysis of the individual interviews. Glesne (2006) stressed that "coding is a progressive process of sorting and defining and defining and sorting those scraps of collected data that are applicable to your research purpose. By putting like minded pieces together into data clumps, you create an organizational framework" (p. 152). The researcher divided the data, created specific identifying codes, and refined and named the codes as new data was incorporated. After the specific themes were determined and codes established, the information recorded from each of the interviews was merged into one document that contained all of the themes and supporting phrases made by the interviewees.

A basic cut paste technique was utilized to determine which segments of the transcripts were vital to the research questions. A simple thematic coding process was used in the identification procedures as basic themes and categories emerged from all data sources. According to Stewart and Shamdasani (1990), this type of content analysis “determines which segments of the transcripts and field notes are important, develops a categorization system for the topics discussed by the group, selects representative statements for the topics from the transcript, and develops an interpretation of what it all means” (p. 105). A strategy employed to identify specific themes and patterns from the collected data was implemented. This process occurred in three levels and is referred to as open coding, axial coding, and selective coding (Strauss and Corbin, 1990).

The coding process could be described as a form of pyramid at the base of which is open coding. Through systematic analysis and constant comparison of data the next stage was to reduce the number of codes and to collect them in a way that showed a relationship among them. This stage related to axial coding and the creation of concepts. At the peak of the hierarchy were categories which Goulding (1999) described as uniting the concepts and revealing a ‘gestaltian’ theoretical explanation of the phenomenon under study.

Open coding is the process of breaking down the data into separate units of meaning (Goulding, 1999). This process took place at the beginning of the study. The main purpose was to conceptualize and label data. The researcher separately categorized concepts and clustered them around related themes to structure more abstract categories. In the beginning, the coding was unfocused and open and the researcher recognized many codes that had potential meaning and relevance to the study. The coding began with the full transcription of each interview and she recognized key words and phrases that connected the participants’

descriptions to the sustainability of the professional learning community. The researcher also used memos and notes that she made during the interviews based upon her impressions and descriptions of the situations. The researcher was able to develop a bank of ideas that emerged into categories. This process of slowly developing categories is called the ‘constant comparative procedure’ (Creswell, 2003).

The constant comparative method was used to analyze the interview data since it is a fundamental feature of grounded theory. According to Ary, Jacobs, and Razavieh (2002), the constant comparative method allows the researcher to examine new units of meaning (i.e., concepts, ideas, topics, or themes) to determine the unique features of each new unit, as well as to compare and group similar categories. The continual comparison, contrasting, and redefining of categories caused existing categories to change, new categories to develop, and an improved understanding of the data to emerge (Ary, et al., 2002). When a unit of meaning did not fit into a pre-existing category, the researcher created a new category for that unit.

Coding the data allowed the researcher to both organize and reduce the data (Ary, et al., 2002). Coding categories permitted the researcher to classify similar ideas, concepts, and themes (Ary, et al., 2002). Once the coding categories were selected, the researcher assigned abbreviations to denote particular “units of data,” such as paragraphs, sentences, or sequences of paragraphs (Bogdan and Biklen, 1992). After assigning the initial coding categories, the researcher continued to revisit the assigned coding categories, make changes to the codes or categories as appropriate, as well as assigned “major codes” to the more general, sweeping data and “subcodes” to smaller sub-categories of the “major codes” (Bogdan and Biklen, 1992). Subcodes provided support to incorporate into the discussion of the study’s findings.

Entering the phase of axial coding, the categories were further developed by testing the relationships found in the categories and subcategories against the data. The process of axial coding assisted in making conceptual linkages and in making the theoretical concepts denser. During this second level of coding, the focus shifted on the significant words and phrases to see what patterns or themes had emerged. All theoretical relationships projected during the phase of axial coding were considered provisional until verified through frequency in a comparative analysis of the data that had been being collected.

Once the preliminary coding had been accomplished, the data was reviewed for the final stage of data analysis known as selective coding. Dominant and subordinate themes were identified and the analytical strategy of the content was applied. During this process, all categories were merged around central themes. This process allowed the researcher to provide descriptive details with the major categories that emerged during the analysis of the data. It is during this phase that categories that were not as well developed were also identified (Strauss & Corbin, 1990). Through this systematic process of data analysis, categories, patterns, and relationships became transparent within the data sources. The final stage presented the theory, bringing together the concepts and integrating them into categories that had explanatory power within the context of the research.

Trustworthiness

To improve the reliability of the results, the researcher employed a case study protocol by forming what Yin (1994) called a “case study team” to ensure that an appropriate case study protocol had been selected and followed and that any potential problems with the case study plan were uncovered in a timely way. The case study team was made up of the researcher’s dissertation committee members. The case study protocol included an overview

of the case study project (i.e., project objectives, topic, etc.), field procedures (e.g., site selection procedures), case study questions, and the specific guidelines for the case study report (Yin, 1994). The researcher developed a case study database, which included an evidentiary base (e.g., case study notes, case study documents, tabular materials, narratives), as well as the final report, or dissertation in this case (Yin, 1994). Following the case study protocol and developing the case study database increased the reliability of the results and formed a chain of evidence that allows the reader to easily follow the origin of evidence from the initial research question to the case study's conclusions (Yin, 1994). Furthermore, the case study protocol and database triangulated the data (i.e., documentation from materials the researcher had reviewed such as the school's master schedule, PLC logs and minutes, the school's Improvement Plan; focus group discussions and interviews; and direct observations of professional learning community group sessions) and adds to the construct validity of the case study.

Every possible effort was made to ensure the trustworthiness and credibility of the research. Due to the previous experiences as a member of a professional learning community, the researcher continuously worked to ensure her personal knowledge and expertise did not skew the data collected in any way. Nevertheless, the researcher's knowledge may have strengthened the study by allowing her the advantage of being able to filter for crucial elements and events while conducting the study. Portions of the findings were sent to the principal to ensure the accurate interpretation of the data concerning the school's protocol. Aside from following the case study protocol and review of the interview audio recordings, the researcher also solicited colleagues familiar with this form of research to review the procedures and this provided for substantiation of the data. Sharing the data and the findings

with these colleagues to determine if they interpreted the data with the same perceptions was another critical component for data analysis. This strategy allowed the researcher the opportunity to gain a different perspective and helped her avoid missing critical pieces to the data analysis. Often, people who are not directly involved in the study can see the obvious patterns that might otherwise be overlooked. Their disassociation with the research provided a different lens for analyzing the data. The process created the opportunity for validating the existing data analysis. When different lenses revealed the same data analysis, validation of information was strengthened.

Summary

This chapter described the qualitative methodology that was utilized in this case study, the data collection procedures, and the data analysis methods. The use of a case study provided a means of understanding how the school has sustained its professional learning community. Through the process of collecting interview data, making direct observations of professional learning community group meetings, and reviewing pertinent documents such as the school's master schedule, PLC minutes and logs, staff meeting agendas, and the school's Improvement Plan, the researcher was able to gather "rich data" to address her research questions.

CHAPTER 4

RESULTS

The purpose of this study was to investigate the sustainability of a professional learning community in an elementary school setting. The following research questions were used to guide the study:

1. What is the culture of a school that creates conditions for sustainability of a professional learning community?
2. What is the role of leadership in supporting these conditions?
3. What, if any, are the long-range effects on teacher practice through the change in culture that results in sustainability?

To adequately investigate the proposed questions, the following data collection procedures were employed: 1) Professional Learning Community Assessment - Revised, 2) participant observations, 3) focus groups, 4) individual interviews, and 5) document review.

This chapter begins with a description of the setting and a basic introduction of the participants directly involved in the research study. The presentations of the results include the patterns, commonalities, and themes that are revealed in the study. Patterns and themes that emerged are discussed and the framework for the presentation of the findings in relation to the three research questions created. The findings from the study are organized to address the research questions.

Throughout the discussion, the researcher provides specific examples of data to underscore the findings. Data were selected to exemplify the findings that answered the research questions. These data include excerpts from participant observations of professional

learning communities as well as the focus groups, individual interviews, and document reviews. Specific examples of typical patterns across the research study are presented.

Background of Professional Learning Community Implementation

The principal of PLC Elementary School was first introduced to the concept of professional learning communities through a personal professional experience. She was an attendee at the National Middle School Conference during the 2007-2008 school year, and was able to hear Richard DuFour speak about his experiences and personal knowledge of the benefits of professional learning communities. The principal began her tenure at PLC Elementary School in June 2008. That fall, she attended a program in Chapel Hill, North Carolina through the Principals' Executive Program (PEP). This program focused on the concept of professional learning communities and her interest was truly peaked. In the following months, the principal sent her assistant principal to the same PEP program and the implementation process began.

Later in the spring, the principal and assistant principal configured a core team of teachers to help with the implementation process. During the summer 2009, six teachers and the school's administrators attended a Teacher Academy Module at Appalachian State University to gain more information about professional learning communities and to learn how to successfully implement them at their school. Teachers from kindergarten, first, second, third, fourth, and fifth grades were members of this core team. When the group developed their implementation plan, they considered the culture of the school, its vision, the teaching staff, and the overall benefit of becoming a professional learning community. The core team held four meetings to develop their plan of implementation. The group came to a consensus to initially introduce the concept to the faculty with team building activities. The

team felt the staff needed to get to know each other on different levels and to begin to understand the different personalities and dynamics of individuals within the school. The core team decided faculty meetings would be the most effective time to meet and these meetings began to be used as professional development sessions. The second step in the implementation process was to define a professional learning community and begin to have conversations about what it would “look” like at PLC Elementary School. The staff studied the DuFour model during this time. The third step in the process was to share the timeline and goals for implementation. The principal took a critical lead at that time and shared her expectations, provided examples of group norms, determined that each grade level would function as a professional learning community, provided a meeting schedule, and supplied the group with topics of discussion, common assessment data in a data notebook, and accountability measures that would be used at all PLC meetings.

Following the four steps of initial implementation, every faculty meeting was used as an opportunity for each grade level to share what was occurring within their professional learning community. This time was also used to answer questions and talk about what was working well and to discuss some of the obstacles that were being encountered along the way. The school had become a professional learning community during the past three years and according to the PLCA-R data provided by the principal, the school has institutionalized the professional learning community concept. A future goal of the principal and core team is to design professional learning communities within the school that cross grade levels and content areas. No specific steps are in place for this shift, but developing vertical professional learning communities is a certainly a goal for the core team and principal.

Description of Sample

Prior to the start of the study, 12 certified teachers were randomly selected and notified about the study. Four of the teachers invited to participate in the study did not return a consent form to the researcher. PLC Elementary School has 42 certified teachers serving in grades pre-kindergarten, kindergarten, first, second, third, fourth, fifth, sixth grades, Exceptional Children's program, English as a Second Language Program, Physical Education, Media, Art, and Guidance. All of the participants in the study were currently and actively involved in the school's professional learning community and had been for a minimum of one year. Of the teachers participating in the focus groups and individual interviews, the eight participants had an average of 14 years experience teaching. The experience levels of the certified teachers at PLC Elementary School, based on the 2010-2011 North Carolina's Report Card, were the following: 19% of the teachers have 0-3 years experience, 21% have 4-10 years experience, and 60% have more than 10 years experience teaching.

From the eight individuals that consented to participate in the study and were involved in focus group discussions, six were selected to participate in one-on-one individual interviews. Of the six interviewees, five were female and one was a male. This group of six was selected at random also. Table 1 depicts a representation of the group chosen for individual interviews.

Table 1

Participant	Years Experience	Grade Level	Years in PLC
1	5	3 rd	3
2	10	3 rd	3
3	26	1 st	3
4	14	5 th	3
5	3	2 nd	3
6	20	2 nd	3

Individual Interview Participants' Demographics

The teachers selected for the focus group discussions represented first, second, third, fifth, and sixth grades.

Setting of Focus Groups and Interviews

The settings for both the focus groups and individual interviews were determined by the school's principal. The focus group discussions were held in a room referred to as the "data wall" room. Reading progress as documented in a computerized literacy assessment was posted on the wall in this room. The room is typically used by the instructional specialists during the school day. The focus groups were scheduled after school hours. Since four participants were involved in each of the focus group sessions, the time spent together was very cordial and relaxed. Everyone was seated at a round table which allowed good eye contact and a close proximity for the discussions.

The setting for each of the individual interviews was an isolated, private room located outside the school's main office. The room was quiet and the rectangular table allowed the interviewees and researcher ample space to discuss documents kept in PLC notebooks and data notebooks. An interview schedule was developed after the researcher obtained a copy of the school's master schedule. Each grade level at PLC Elementary School has a common planning time every day of the week and the researcher allowed the interviewees to pick the day of the week that worked best in their schedules to conduct the interviews. Two of the interviewees requested to have their interviews held after school hours despite being offered the opportunity to be interviewed during their planning blocks. The individual interviews lasted approximately 45 minutes each.

Participant Observation

The researcher spent approximately 10 hours observing the professional learning community at PLC Elementary School. Observations included horizontal PLC grade level teams in first, second, and third grades. In addition, the researcher spent time in the school office, halls, classrooms, and media center.

While the observations were valuable in gleaning information about the professional learning community at the school, the majority of the observation time was spent in grade level professional learning communities. PLC Elementary School has grade level professional learning communities in grades kindergarten through sixth. These professional learning communities consist of all the teachers at a particular grade level and each grade level has four to five teachers. Teachers from other groups, such as the counselor, media specialist, or instructional specialists attend these team meetings as needed. The Exceptional Children's teachers work in their own professional learning community. The grade level

professional learning communities are allowed to meet throughout the week during their common planning times; however, all grade levels are required to meet in their professional learning communities two hours each month after school hours. These meetings are held on the second and third Wednesdays of the month.

Documents

The researcher had access to a vast amount of electronic and paper documents. The principal of PLC Elementary School requires the grade levels to keep PLC notebooks containing minutes of all their meetings. The information recorded for each meeting includes the team members present, team members absent, meeting topics/products/outcomes, and questions/concerns from the team. These notebooks are turned in to the school's administrators for review periodically. Each grade level is also required to keep a data notebook for the grade level that includes individual student's scores for common assessments. The principal also keeps copies of staff meeting agendas, the school's master schedule, and Improvement Plan on her computer. The researcher was given full access to all of these documents as well.

Findings

In deriving the findings, grounded theory was used as the framework for developing and understanding the experiences of the participants. To begin the process of generating theory from the data, the researcher used open, axial, and selective coding to identify the patterns, categories, and themes that surfaced as the data was reviewed. The use of grounded theory required the researcher to perform multiple readings of the data to discover these patterns, categories, and themes.

Open coding was the first level of analysis. Every observation and all the transcripts from the interviews and focus group discussions were read and reread by the researcher. The objective was to determine the overriding meaning of the data. The researcher also listened to the digital recordings and followed along with the written scripts with the intent of looking for significant words or phrases. During this process, the words and phrases that emerged as patterns or themes were listed in a computer document. An individual document that contained key phrases and words for each individual interview, focus group discussion, and participant observation was recorded.

A second level of coding, axial, was initiated to focus on the significant words and phrases that were reoccurring in all of the individual interviews, focus group discussions, and participant observations. The researcher reread all of the data to determine the themes that were emerging. The original transcripts that were created for each individual interview were then combined under categories and themes that had surfaced. This was accomplished through a constant comparative analysis investigating the similarities and differences that were found in the data. The researcher then began to look for possible relationships among the categories.

As the researcher entered the third phase of the coding process, selective coding, data were reviewed for identification of dominant and subordinate themes. All of the individual documents from all of the individual interviews, focus group discussions, and participant observations were merged into one document and the phases from the participants were placed under the corresponding categories and themes. The data was then separated by the appropriate category and placed with the corresponding research question.

The first opportunity for data collection was the participant observations of professional learning communities in first, second, and third grades. During the initial observational periods, the researcher did not interact with the participants. During these observations, the researcher recorded the following behaviors that were demonstrated on a reoccurring basis in all three professional learning communities. Participants were:

1. Cordial and openly greeted one another when they entered the room.
2. Laughing, making occasional jokes, and smiling.
3. Sitting around the table or at the computers leaning toward the other participants.
4. Actively engaged, taking notes, and interacting in the conversations.
5. Making eye contact with the people talking.
6. Not engaged in side conversations. All discussions pertained to the agenda that had been established for each meeting.
7. Nodding heads in agreement with statements made by group members.
8. Reviewing documents together and making hand gestures and movements indicating engagement in the discussion.
9. Listening intently. A high level of respect was displayed as one participant would talk at a time.
10. Sharing student data openly and discussing criteria for intervention groups.
11. Offering help to colleagues when they didn't understand the task at hand or when they were new to the grade level.
12. Willing to assist team members who struggled with technology.
13. Participating in assigned roles such as facilitator, recorder, and time keeper.

Through this observational phase, the researcher was able to watch the interaction and practices of the participants and listen to their conversations. Thus, the researcher gained insight into the experiences that were occurring within the professional learning communities at each grade level. A review of field notes and analysis of data collected during the observational period assisted in the preparation of potential probing questions for the focus groups. Following is a list of categories that surfaced from the analysis of the participant observation data:

1. Collaboration
2. Ability to utilize strengths of team members
3. High level of comfort with each other
4. Data driven decision making
5. Student centered and focused on achievement
6. Acceptance of weaknesses when team members needed assistance
7. High level of participation
8. Distributed leadership
9. Positive interactions between team members
10. Time constraints

The researcher also made field notes of documents that were reviewed during the study. These documents included PLC agendas and logs, data notebooks, staff meeting agendas, the school's master schedule, and Improvement Plan. The following categories were evident from these reviews:

1. High levels of accountability
2. Committed focus on learning

3. Data from formative assessments
4. Common planning for all grade levels
5. Collaboration
6. Data driven goals
7. Distributed leadership
8. Documented grouping of students based on performance
9. Data provided from a district level
10. Data driven decision making

Continuing with the process of open coding, the researcher read all transcripts from the audiotapes collected during the focus groups with the intent of gaining an overall perspective of the data. Relevant words, phrases, and concepts that continually emerged from the data were listed as possible codes or categories. The use of the focus group data enabled the researcher to gain a deeper perspective of the participants' experiences in their professional learning communities and this knowledge allowed the researchers to ask probing questions and delve deeper during the individual interview phase. Many of the probing questions used during the individual interviews were derived from the data that was collected during the focus groups and the participant observations.

At the onset of the analysis phase, 21 provisional categories emerged from the data:

1. Data rich
2. Trust
3. High expectations
4. Time
5. Continuous conversations about students

6. Continuous interventions
7. Accountability
8. Numerous demands
9. Individualized instruction
10. Relationships
11. Shared/distributed leadership
12. Lack of buy-in
13. Continuous/relevant training for staff
14. Teamwork
15. Supportive
16. Rigid schedules
17. Shared responsibilities for students
18. Ownership
19. Flexibility
20. Limited personnel
21. Too focused on data

After conducting reviews of the field notes made from the document reviews, participant observations, focus groups, and individual interviews, the researcher looked for specific properties and dimensions within each category.

Using the second tier of coding, axial coding, categories were grouped and subcategories formed based on the specific properties and relationships that had emerged from the data. Digitally cutting and pasting, from the transcribed notes, specific quotes assisted in determining the validity of the categories that had emerged. To make the concepts

of the categories denser, specific linkages between provisional categories were investigated. Common themes within the provisional categories emerged once the data was reread. Four themes were identified as emerging as shown by Figure 2.

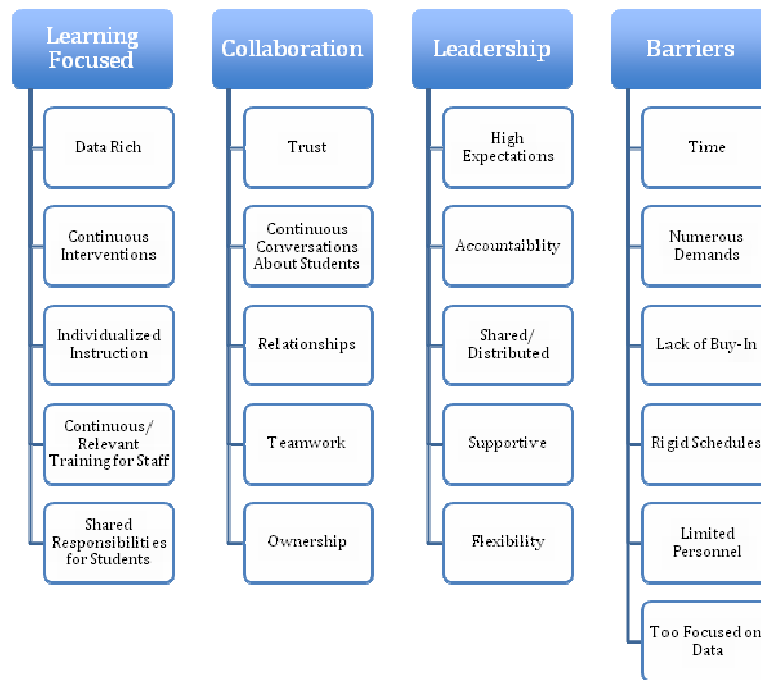


Figure 2. *The four provisional themes and categories.*

This process provided entry into the selective coding phase. During this phase, the researcher reread all of the data. Phrases from the participants, gathered during the review of the data were used to support the identified categories. Notes were made detailing similarities and differences as the data was reviewed. As shown in Figure 3, the researcher was able to unify all categories around four overriding core themes: 1) Learning Focused, 2) Collaboration, 3) Leadership, and 4) Barriers.

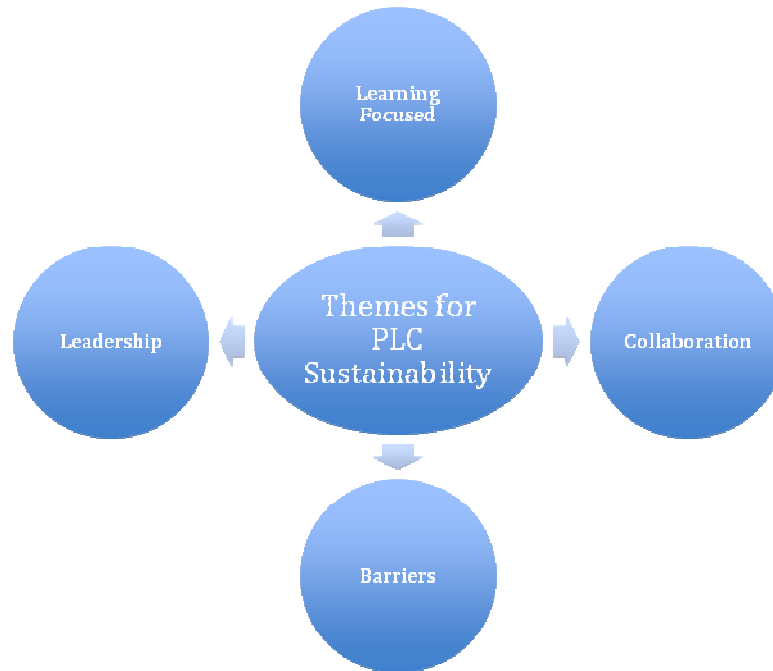


Figure 3. *Four core themes*

In the following sections, the researcher will break down the data from the interviews and focus groups to individually answer the three questions developed for the research study. Data for each question will be organized around the four core themes.

Research Question 1

The first research question, “What is the culture of a school that creates conditions for sustainability of a professional learning community?” allows the reader to develop a comprehensive understanding of the culture of PLC Elementary School and the conditions that have been created to sustain the professional learning community. To explore the research question, the transcriptions of the structured interviews and focus groups, along with the participant observations and document reviews were explored using the coding process discussed earlier in this chapter.

The responses are organized in the context of the four identified themes: 1) Focused Learning, 2) Collaboration, 3) Leadership, and 4) Barriers.

Learning Focused. A shift from teaching to learning has occurred since the implementation of professional learning communities at PLC Elementary School. Johnson and Blair (1999) wrote, “We have come to believe the only way to find meaning in the instructional task is to make student learning the central focus. This involves viewing teaching and learning from the perspective of what students need to learn and how they can best learn it” (p. 4). The effectiveness of classroom instruction is continuously reviewed at PLC Elementary School. Interview Participant 4 proclaimed,

Improving classroom instruction is exactly what we do in our PLCs. We look at individual students’ performance. We review certain demographics such as ethnic or economically disadvantaged subgroups and determine if certain groups of students are struggling. Then, we regroup the children according to their performance and plan lessons and strategies to meet their learning needs.

Another teacher confirmed this focused commitment to learning by saying:

Our PLCs allow us to implement newly learned skills. Yesterday was a good example of that. We had completed an on-line module with the curriculum specialist. It wasn’t mandated that we had to complete the second part during our PLC meeting; however, having our PLCs in place was the perfect opportunity for us to complete the second module as a group. Our PLCs have really helped a lot of times when we have done something in a staff development session or when we have learned something in a staff meeting; we can go back into our PLCs and decide how we are going to take this new practice back to our students. We constantly ask, “How are we going go back and make our teaching better?” That sort of follow through never happened before

we became a PLC. Before, we had to implement new practices and programs on our own, and that was typically unsuccessful. (Interview Participant 6)

Interview Participant 2 supported such practices with this statement,

We discuss student work and provide feedback within PLCs and grade level meetings. We have a lot of common assessments that each grade level administers so we have a common picture to review and study. At faculty meetings we usually have time to share practices and strategies. That creates another opportunity for us to look at data.

DuFour and Eaker (1998) assert that in order to operate as a professional learning community, members must engage in ongoing study and constant practice that characterize an organizational commitment to continuous learning. A focus group participant confirmed the study of data drives the professional learning community at PLC Elementary School,

Each group of students you get is unique. I mean from one year to the next they are different. I think that really drives our work because I can use the example of discovering our current students are scoring lower on math this year than our previous group. Last year, our students scored lower in reading. I think different groups of students and their different academic strengths and weaknesses continually drive the PLC. These differences force us to continually reflect on our practices and instructional strategies and when you reflect you are always looking to make improvements. (Focus Group 1 Participant)

A second focus group member elaborated on the same statement,

One year the problem might be more of a fluency issue and the next year it might be more of a comprehension issue in the reading content area. If students came to us

with the same strengths and weaknesses every year, what would be a need for a PLC?

We would already have all the answers. I think it's the academic differences from year to year that drive the PLC. (Focus Group 1 Participant)

Goals within the school's Improvement Plan supported a committed focus to increase student achievement. Three SMART goals serve as the school's overarching plan for improvement. These goals were written into the Improvement Plan in such a way that they were specific, measurable, attainable, relevant, and time-bound. That is where the acronym SMART is derived. While many action steps and strategies were written into the plan to ensure student success, the three goals pertain primarily to the students' reading and math performance. The following was noted for SMART Goal 1 in this plan, "By June 2012, a minimum of 94% of PLC Elementary students will achieve proficiency (level 3 or 4) on the end of year assessment in grades 3-6 while attaining expected growth in reading" (School Improvement Plan, 2011). Teachers are keenly aware of these target goals and they implement instructional strategies and monitor their effectiveness routinely.

While conducting the focus group discussions, it became apparent that the teachers in the upper grades struggled a little more with their data analysis because often times each teacher in the grade level teaches in a different content area. Despite this struggle, the teachers have begun to integrate their instruction to build reading and math skills, even when they weren't responsible for the reading and math content. This willingness to help each other and strengthen students' academic skills is evidenced in the following statement,

Being a teacher in a departmentalized grade level made our PLC discussions difficult in the beginning. Over time that has improved and it is great to come to our PLC meetings and see what is going on in other content areas. I found out what the science

and the math teachers were doing in sixth grade through these discussions. I learned how I could support the reading aspect of the whole grade level, even though I wasn't called the "reading" teacher. We did a lot of talking about that and one benefit that came out of it is that I became familiar of the reading structure so when I was teaching science, I could help students on their reading EOGs. That's definitely another benefit of our PLC conversations. (Focus Group 1 Participant).

Another upper grade teacher went on to share this comment,

I agree. I was responsible for social studies the past two years. Before that I had been either been a math teacher or in a self-contained classroom. Seeing what the reading teachers were looking at, what they were up against, and the problems the children were having with the EOGs (especially the reading area of the EOGs), I began to realize how much I could impact reading scores in my social studies class. That was eye opening. I began to learn how to take the information the students needed out of the social studies text and I worked to improve reading skills. I never really thought about it that way before because I was always just teaching my subject. So it was a little like it had been in the lower grades. In that setting I integrated my teaching all the time. Everything just seems to mesh together in the lower grades. It just seems more natural than when you are departmentalized. You kind of get away from that integration and you feel isolated. PLCs have brought it back together for me. (Focus Group 1 Participant)

At PLC Elementary School, teachers share instructional strategies and seek the advice and opinions from their colleagues about effective approaches to working with students. Teachers are committed to all students' improved learning. The teachers feel like their PLCs have

improved over time as evidenced by Interview Participant 5, “I think we are doing a better job of knowing what to do with that data.” The data analysis process is not as threatening as it once was,

I think we see the data in a different way. We used to see it as a number on a page and now we really see the individual students and the grade level trends. In the beginning, I looked at it as just being numbers. Oh, half my class is not doing well in this...

Now I can use the data to determine when students are having difficulty with specific skills or objectives, and I take steps to increase their learning. When looking at data and cold hard facts, it kind of takes the personal piece out of it. It kind of removes one single person and is not so personal anymore. It’s just data that “we” need to use to improve our instruction and increase student learning. (Focus Group 2 Participant)

In addition to the improvements in knowing what to do with the data, participants also acknowledged a likelihood of the professional learning community being sustained due to seeing the benefits of increased student learning. Interview Participant 1 declared,

The people that have seen the benefits of our PLCs will continue to use data to improve student learning. We would continue to function as a PLC because we have seen how much you can get out of that data that we didn’t see before. I didn’t learn how to use data to drive my instruction in college. I didn’t learn to pull specific information out of the data and use it to improve my teaching. I didn’t learn how to use that information in isolation. I learned how to do that in my PLC and now I’m using it all the time. I’m doing stuff I didn’t even realize before and there is no way I would go back to my old ways. I would never go back to not using the data to drive my instruction.

Interview Participant 4 reiterated,

I agree with you. If another leader came in and said you don't have to do PLCs anymore, I think our PLCs would continue despite this change. We have seen the benefits of looking at the data, and looking at your grade level as a whole instead of just as your fraction of a classroom. I think that has rubbed off on me and I know that I would want to continue that in my grade level even if it wasn't an expectation from our administrators.

Collaboration. Professional dialogue that is fostered in a collaborative culture, promotes a collective purpose for learning. It moves teachers away from an isolationist view of practice and implements collaborative structures within the school. Little (1990) advised that effective collaboration between teachers was linked to gains in student achievement, higher quality solutions to problems, increased self-efficacy among all staff, more systematic assistance to beginning teachers, and an expanded pool of ideas, methods, and materials that benefited all teachers.

A shared sense of the vision and goals of a learning community is constructed through continuous conversations by its members. This vision is embedded in daily practice and it is visible to all stakeholders. Such a vision exists and is practiced at PLC Elementary School. The focus and goals of the school's staff are woven into the fabric of school and community life and are centered on the improvement of student achievement, learning, and growth. When reviewing the school's Improvement Plan, the researcher noted the school's vision and mission statements were included on the front page of the document. The following statement was incorporated into the mission statement, "At PLC Elementary School, we are eager to create leaders and learners for tomorrow" (School Improvement

Plan, 2011). Interview participant 2 supported this statement when she talked about PLC Elementary School's vision. Interview Participant 2 stated,

The official vision of this school is to Teach, Lead, and Learn for the Future. That is the vision our district developed, and we kind of break that concept down into what it really looks like here at our school. This year we are going with the T.E.A.M. philosophy (together everyone achieves more), and that is basically the vision we use in getting kids where they need to be academically. We work in grade level PLCs to ensure this happens.

Interview Participant 5 provided another example of the vision that exists at PLC Elementary School and how it is communicated to others, inside and outside the building by declaring,

Inside the building we have a little theme that we say. It is "Give a HOOT." That stands for High expectations, Others matter, Outstanding respect, and Think safety. That kind of goes with the overall success of the students academically, emotionally, and physically. That theme is posted everywhere in our school and also those expectations are sent out to parents in newsletters. People in the community are aware of the theme too. When you go through our car rider line signs are posted there, and I am certain the parents know that we are here for their children. We want them to be respected, and we want them to be successful. We have high expectations for them, and we want them to have high expectations for themselves. That is how our vision is communicated throughout the school community.

Individual Interview 6 reiterated, "Our vision is that all children can learn and each child has their own individual needs. We are going to work as a team to meet all of those needs."

Barth (2006) stressed, “the nature of relationships among the adults within a school has a greater influence on the character and quality of that school and on student accomplishment than anything else” (p. 8). The staff at PLC Elementary School is collaborative and they work together routinely. The teachers are very cooperative and willing to share and help each other. While observing a grade level PLC meeting, the researcher noted how comfortable the teachers were with one another. They were not threatened by the strengths or weaknesses of individual team members. The group worked to complete a state mandated module that pertained to formative assessments. The teachers assisted each other when one had a question about what to complete on the module and when someone experienced difficulty navigating the page on the computer. In Focus Group 2, one participant provided an example of the teamwork that occurs in their school by proclaiming,

I think our professional learning community has become a living breathing entity. We are constantly growing with it. Whereas a lot of other workshops you go to, you learn something and you are supposed to continue doing things with what you have learned, but you’re not adding to it unless you go to another class or you go to another workshop. Also, you go to a professional development session and you learn a skill or strategy and you are supposed to do something with in your classroom, but you are on your own. Here, we’re a team and we continue every week doing things with what we are learning. So, it’s like a living breathing thing that’s continuing to grow with us. Whereas you go to a class and that class ends. The learning also ends unless you do things in your classroom with it, and we work to ensure we implement what we have learned in our classrooms.

Many of the participants affirmed the teamwork that goes on within the school and provided a variety of examples.

I think the togetherness of it how we work as a group makes this situation unique. Not all professional learning has that togetherness feeling. I think that is what makes us different from other schools. (Focus Group 1 Participant)

Another interviewee offered the following,

I like that “togetherness” feeling we have at our school. I like the sharing and collaboration that goes on when you work in a team of five or six sitting around the table. During every PLC meeting, I hear something I never thought of before. I become a learner myself every time we meet. I learn a lot more when we share and talk versus picking up in article, reading a book, or reviewing a website. Hopefully, the mindsets for everyone at our school will change. I think that is really how our professional learning community will be sustained. I would hope that even if the administrators moved on or if the people in the Central Office weren’t talking about PLCs as much, I would hope that we would be collaborating constantly even if it wasn’t necessarily called a PLC. (Interview Participant 2)

Interview Participant 5 made the following statement about the support that is provided and reiterates the concept of teamwork and working collaboratively within the school staff,

Our curriculum specialists offer a great deal of support to our staff. We actually have two curriculum specialists that are housed here at the school. They help us whenever we need it and there are certain times when we have scheduled meetings like during our grade level meetings when we will talk with the math specialist about the math program that we use. Once a month we talk to the reading specialist about *Words*

There Way and the mCLASS literacy assessment. Tomorrow, we have a science curriculum specialist coming in to help us. These individuals are always offering support and we work well as a team.

Interview Participant 6 acknowledged this collegiality with the following statement,

We work collectively as a team. We all meet and talk routinely. We see what the students need and if they need academic instruction on a lower or higher level, we rearrange our students because it's not just one prescription for each child. It isn't one size fits all program at PLC Elementary School. We talk to each other all the time. If students need instruction from a higher grade or a lower grade we go to the person in those settings and ask for their help. It takes real teamwork in order to meet each child's needs and that is something that is very unique here. I like that I can go to somebody else in another grade level and say, "I'm struggling with this child, can you help me?" It's not just that you are stuck in your grade level or classroom by yourself.

A focus on professional learning communities has resulted in a changing view of the role of teachers at PLC Elementary School. Schools that function as professional learning communities encourage teachers to move away from the traditional view of teachers as isolated practitioners toward a collaborative, learning-centered model. Reitzug (2002) writes, "recent research on teaching and learning has established that teaching and learning is not a simple cause and effect relationship, but rather a complex process in which learning is co-constructed by teachers and students in a specific classroom context with instruction at any point in time reflecting the teacher's analysis of the various elements in play at that moment..." (p. 2). Teachers at PLC Elementary School have begun to view the students'

learning differently as evidenced by a Focus Group 1 participant's acknowledgement, "We take ownership for all the students as opposed to just our class. We talk about the whole grade level rather than what goes on in our classroom." Another participant indicated, "You look at the students' learning differently because you beginning to become aware of what is going on around you" (Focus Group 2 Participant). Again, teamwork was supported when another participant remarked, "You don't feel exhausted that you spent all your energy on one student because everybody is pitching in and helping. It doesn't matter what class they are in" (Focus Group 2 Participant).

Because of the incessant opportunities for engaged collegiality and collaboration at this school, a shared responsibility for all students' learning has become a natural occurrence. As Interview Participant 2 specified,

I think PLCs are really helping because staff members are starting to get away from the mindset that I experienced while I was a second grade teacher. I always felt like anytime my students would go to third grade and they didn't pass the EOGs, the third grade teachers were blaming the second grade teachers. I think our professional learning communities have helped the shift the mindset to the fact we are all in this together. It isn't one person's fault or victory. We're all in it together and what the teachers start in kindergarten makes just as much difference as what we are doing with the students in my grade level.

Trust among the professional learning communities' members enables them to be successful when they cross teaching assignments and grade level boundaries. A participant from Focus Group 1 indicated, "A big part of what makes the PLC fail or succeed is trust because you need to be able to trust those people you are working with and know they are

working with you for the benefit of all the students.” An intervention block has been incorporated daily into the school’s master schedule. During this 45-minute block of time, teachers work together to work with small groups of struggling students. This involves all certified staff within the school. In a review of current research for Alberta Education, the In Praxis Group (2006) found, “those who share the same concerns and challenges learn more effectively if they work together” (p. 29). Under this format of collaboration, teachers learn about various grade levels concepts, strategies, and expectations. They are also able to develop trusting relationships with other people within the building. One Focus Group 2 Participant shared,

I know that we have pulled in our media specialist to assist us during the intervention time. She typically takes our top performing students and they work on projects. This allows the seven adults for our grade level (including our assistants) to divide the struggling students into small groups when the higher performing students are taken out to work in the media center or computer lab.

Another Focus Group 2 Participant shared a similar response,

We use our guidance counselor in a group. She works with a group and this helps us so that we can make our groups as small as possible. She had actually worked with students from our grade level before and that made for a nice fit this year. That’s a good thing about this school. Everybody is willing to work together. People just talk and work together, and that allows us to effectively use our people and resources in a way to positively impact student learning.

The opportunity to establish and strengthen relationships among the staff creates an atmosphere within the school of a shared responsibility for learning. As stated by one participant,

I think it kind of lightens the burden a little bit. I know with EOG testing last year, I had one student who didn't pass the reading test and the two teachers who had worked with him during the intervention time were just as upset as I was about it. We had worked so hard all year long. It's not like I failed him. It was kind of like as a team we really did our best and we still didn't get him to the proficiency level for our grade level. Nevertheless, we have obtained important information that we need to pass on to the next group of teachers about this student. Despite our disappointment, we felt like we were sharing the burden a little bit (Focus Group Participant 1).

This extension of teamwork and shared responsibility has also developed a strong supportive network as indicated by one participant's comment,

I think you have to be open and accepting to the fact that other teachers' students do well. You also have to be willing to go to that person and say, "Hey, what did you do that worked with your group in fractions?" We bounce things off each other in our grade level like that. I think that has been very helpful for our teachers (Focus Group Participant 1).

The staff at PLC Elementary school have developed relationships that extend beyond the walls of the school. The trust within this non-threatening environment supports friendships that carry over into their personal lives. Interview Participant 1 stressed,

I really think it is good for faculty within the building to get to know each other outside of being classroom teachers. It builds a relationship beyond the classroom.

This socialization enables us to see each other as human beings and professionals.

A teacher assistant within the school plans a social outing each month. Often times this individual picks a local restaurant and makes a reservation. The entire staff is invited to attend. Interview Participant 2 commented, “It’s a great way to get to know your co-workers outside of the school setting. Most people are very different outside of school, so that’s always interesting.” The outcome of these social outings is a family-like feeling that is experienced within the school. This familial feeling is acknowledged when new staff members become a part of the school. Interview Participant 4 stated, “There isn’t a set procedure as to what to do when someone new comes to the grade level at PLC Elementary School. We just take them under our wings and we make sure that they know what they are doing.” Such a supportive mindset plays a role in the success of staff as evidenced when Interview Participant 4 avowed, “I think the best asset to new staff members is the way a grade level team takes care of them.” Interview Participant 3 also noted,

We want every staff member at PLC Elementary School to be successful. I think anytime you have new faculty members coming into a school, it is really difficult to tell them everything there is to know about the school. Successful teachers produce successful students. When we have had a new teacher come into our school, we share some of the responsibilities with that person. However, at the same time we haven’t wanted to overwhelm them by making everything equal. Just having an understanding heart helps with this transition. When new people come into our school, they need to feel important, successful, and supported.

Leadership. As researchers like Fullan (2002), Marzano (2003) and others assert, the role of leadership is crucial to any school improvement process and particularly to professional learning communities. Connections in the research point to the necessity of effective leadership for school improvement, the establishment of viable learning communities, and the development of collegial environments. The participants involved in this study shared comments that leadership is shared and distributed throughout the school. It was apparent that the school's Building Leadership Team (BLT) is vital to the decision making process at PLC Elementary School; nevertheless, all teachers have an opportunity to lead within the school. One participant responded,

We have the BLT which is made up of one person per grade level. That person is also the grade chair so they are kind of responsible for communicating between administration and the grade level. We also have members within our grade level who are the leaders or who serve as leadership representatives for different committees. They are responsible for bringing that information back to the grade level. We have a safety team, a language arts committee, a science committee, and a math committee. I would say it was pretty equal as far as leadership goes within the grade levels because everybody is responsible for communicating something to everybody else. (Interview Participant 1)

Interview Participant 5 added,

We have our administration and grade level chairs and those individuals serve on our Building Leadership Team. Our grade level chairs guide us, but I feel like we all lead because we all have a chance to talk to that one person in our grade level. I feel like we are all are leaders in our own classrooms and leaders throughout the school. For

example, if I see a student in the hallway doing something that they are not supposed to do, I feel like it is OK for me to say “Are you supposed to be doing that?” because we are all seen as leaders throughout the school.

Interview Participant 3 supported that leadership is distributed throughout the school with the following statement,

I really think we all have an equal voice. Our administrators obviously have the final word as far as leadership goes, but I think any teachers (whether they are on the Building Leadership Team or not) have an equal voice as long as they voice what they believe and do it in an appropriate way. I think every person would be heard. There have been times when we have voted on things the majority of our staff supported and there have been times when the BLT has made decisions without a vote from the entire staff. I guess it really depends on the situation, but as a teacher I feel like I have an opportunity to give my opinion on anything I believe in. I feel like if the majority of staff feel a certain way, that’s the way it’s going to go unless it is something mandated by the state or county office.

In the interview with Participant 6, she confirmed the way leadership is distributed among staff,

Leadership is distributed throughout the school through a variety of committees. A lot of people volunteer for certain committees and some times it is left up to the grade level to decide who serves on which committee. The grade level decides who is going to represent the grade level team on the Building Leadership Team.

As a follow up to comments about the leadership being distributed throughout the school, the researcher asked how problems are resolved at PLC Elementary School. One of the participants stated,

If problems arise, the principal encourages us to talk about it as a grade level and submit the problems to the Building Leadership Team. Then the BLT discusses it and tries to come up with a solution. That solution is usually relayed at a faculty meeting or even through e-mail. The principal really encourages us to avoid too much dialogue about specific problems outside of a formal meeting. She really wants it to be discussed within a meeting where solutions can be created instead of people gossiping about it. (Interview Participant 1)

Interview Participant 2 offered more information about the process to resolve problems with her comment,

I think problems don't get resolved if they are just being talked about and one thing that the principal has always encouraged us to do is if you are going to bring a problem to the group, bring a possible solution with it also. So, we really try to do that. Instead of just sitting around and talking about the problem, we work to figure out how to resolve it as quickly as possible and get on with it. I think that is why the principal wants that dialogue taking place inside of meetings where we can kind of hold each other accountable and keep it at a professional level.

During the focus group discussions, the researcher noted that while the principal held everyone accountable for some type of leadership within the school, she also maintained the ability to be flexible with her expectations. The participants felt she had an understanding nature and they felt her willingness to listen and work with them was an asset.

The principal has been very understanding as far as meeting schedules go. During those crazy and extremely busy times of the year, she doesn't expect us to adhere to our usual meeting schedule. Typically, we have two PLC meetings each month. If you don't get those two PLC meetings in during those busy times, she understands and is willing to work with us. I know that in our grade level there are times at the beginning of the year and at the end of the year when we have a lot of parent conferences and things after school. Sometimes we will meet during our planning block and then continue after school and she is fine with that if that is what needs to happen for that busy time of the year. (Focus Group 2 Participant)

Another participant from Focus Group 2 offered this comment,

We have already talked about all of the things going on during the month of October. Our principal is not expecting us to stick to the PLC schedule because that's when parent conferences are scheduled, PEPs have to be completed, and all that kind of stuff. It's just going to be really hard especially for the upper grades to fit their PLCs into a short window of time on those days. Trying to fit our PLC meetings in during that time is very difficult and our principal understands there is no sense stressing everybody out.

Barriers. Barth (2002) makes the point that not only does a school's culture shape profession learning and student achievement, but the most important—and the most difficult—job of an instructional leader is to change the prevailing culture of a school. Achieving cultural change is elusive and all of the participants in the study noted on some level there were still a few teachers who have not completely bought into the concept of

professional learning communities. The importance of buy-in was offered in a focus group discussion.

To use a poker term, it's all or nothing with the concept of professional learning communities. You can't do this half way. The concept won't be successful if you are not fully committed. You have to realize that the goal for EVERY person who is a member of your PLC is to help the children. If everybody doesn't buy into that, it's not going to work and higher student achievement won't be achieved. In a PLC, I think you need everybody to buy into what your issues are and work to resolve them as a team. Then, move on to the next issue. I think that makes a PLC function at the highest level if everybody buys into it. (Focus Group 1 Participant)

A similar statement was made during an individual interview.

I think with any new initiative there are people that begin with an open mind and positive attitude. And then, I think there are some people that go into everything with a negative attitude. They automatically think, "It's going to be more work." It's one more thing to do instead of seeing it as it really makes their jobs easier because you are not doing all that work on your own anymore. I would really like more people to have more of an open mind and I feel like each year we get a few more people to buy into the concept. I feel like the majority of the school is on board. I think some people have problems with the logistics of it when it was communicated that we were going to have two meeting and they were going to be for an hour on the second and third Wednesday of the month. Having a specified PLC time and being told you can't talk about anything else except data may also cause a problem with some teachers. I think it is still hard for some people to trust other members and that takes away from

the grade level PLCs. Also, there are some people who are not comfortable sharing with other people. Our staff still needs to do more exercises in team building. At some point we just have to move on and pull those people along because we don't want certain people undoing all the good work that we are trying to do. (Interview Participant 2).

As a follow up to comments about the lack of buy-in that were made during focus group discussions, I asked each participant what they would change about their professional learning community. Interview Participant 4 offered the following statement,

I think it is very valuable time that we spend with our PLCs, so I wouldn't change the expectation to meet in our groups. I do wish more people would buy into it whole heartedly. I wish people wouldn't just sit there in the meetings because they are told to. As for the concept of it or the dynamics of a PLC, it's amazing. I think where the problems occur are when people don't buy into it. I mean the whole PLC concept you can't argue that it is not worthwhile. If you buy into it and become a productive member, you can't argue that is not great because it does positively impact students' learning. I would say that a lack of understanding about what goes on in a true PLC leads to the misconception that it is not valuable time spent with peers. I think that would probably be the only thing I would change because being a part of a professional learning community has made me a better teacher.

A similar statement was made by another participant.

If I could change anything about our PLC it would be a couple of the attitudes about it. We don't always have 100% commitment from our members. They seem to think they have more important things to do. We have to just suck it up and do it for the

students. I feel like we are very strong and open with each other, but I think sometimes we also get on each other's nerves. I wish everyone would have a positive attitude going into every meeting. (Interview Participant 5)

Despite this lack of buy-in, the participants felt like the barriers were diminishing and the true spirit of teamwork was being established throughout the school. A couple of participants even offered strategies to overcome these barriers. Interview Participant 3 offered this suggestion,

Well, there are times when you have certain members of the PLCs who despite whatever you are discussing, they see things in a different way. It's fine. It's what makes us educators, but sometimes we too caught up in making excuses. When the buy-in isn't there, teachers get into comparing each other's students. It doesn't need to be like that. Sometimes you just have to just step back and refocus and have additional conversations about why it is beneficial to be a professional learning community.

Another strategy that was offered included this comment.

You either have to bite your tongue or bite the bullet during PLC meetings when negativity or lack of buy-in surfaces. Sometimes you have to step up and say "Hey, we are here to talk about mCLASS and the end of the year reading scores. Let's just look at that data and see what skills the students are lacking and focus on what we can do to improve those scores. Let's get back to business and see where it takes us."

(Focus Group 2 Participant)

Despite the barriers that are experienced at PLC Elementary School, the participants agreed that the benefits far outweigh the obstacles. These benefits include elements within

the work structure that allows staff to collaborate with each other and work together to improve student learning outcomes. These opportunities appeared to enrich the learning experiences for both the students and teachers at PLC Elementary School.

Research Question 2

After determining the culture of a school that creates conditions for sustainability of a professional learning community, the data for answering research question 2, “What is the role of leadership in supporting these conditions?” was explored. Findings from the data are structured around the four themes identified through the coding process: 1) Learning Focused, 2) Collaboration, 3) Leadership, and 4) Barriers.

Learning Focused. The principal at PLC Elementary School has specific expectations and goals for the professional learning communities at the school. She expects data to be reviewed and discussed routinely during their meeting times in order for teachers to design teaching strategies that address students’ performance and needs in the classroom. Killion (1999) supports the role of leadership in professional learning communities with the following statement, “In schools with strong leadership and dedicated people who work and learn within a community of learners, student achievement results increase.” (p. 78)

During the focus groups and individual interviews, participants continuously spoke of the expectations and goals that were communicated from administration about what was to occur during PLC meetings. Evidence of the expectations and goals of the professional learning communities was supported with comments like the following,

Our PLCs are formed within our grade levels. The principal expects us to discuss things that are data driven during our PLC time. So the other things like field trips or other mundane things that we would normally talk about in our grade level meetings

are not allowed during our PLC times. For the most part, we talk about our common assessments and the results of those assessments. We also talk about what we need to do to address the results of the data. (Focus Group 2 Participant)

According to a Focus Group 1 Participant,

Our administrators remind us often that the data doesn't lie. I think you can't argue with data. I think you definitely see your strengths and weaknesses within your instructional practices. That is the purpose of our PLC discussions. We address academic problems and devise plans to correct these issues.

Within this data-driven environment, the administrators play a role in providing data to the teachers along with accessible visual aids that help the teachers track student performance. During the study, the researcher noted a data wall that has been created at the school. This data wall depicts all the students' reading levels in kindergarten through third grades, along with the students in fourth and fifth grades who function below grade level. The students in each grade level can be tracked using a different colored index card for each grade. Progress on the wall is documented at different times of the year to ensure students will meet the grade level's promotion standards for reading. The principal encourages grade level PLC groups to meet in the room where the data wall is located. This enables each group to visually track students' progress and keep their conversations focused on student achievement.

A participant from Focus Group 2 offered this explanation,

The data wall was implemented last year as a directive of the principal. I think that has helped our PLC continue to become stronger. It was a new thing (a visual) that

enables us to talk about our students and learn from the data as we meet in our professional learning community groups.

Other visual aids required of the principal and reviewed by the researcher were the data notebooks. The purpose of these documents is to provide teachers with access to additional data that can be discussed during professional learning community meetings. Every teacher is responsible for a data notebook that includes a section for each student in the class. A colored divider is used to separate each student. The following information was included for each child in the notebook: 1) a Student Assessment Profile that indicated if the child received supportive services through programs such as the Exceptional Children's Program, was involved in the RTI process, a running record and reading level, overall conduct grade, and summative remarks pertaining to the student's academic progress and development from the previous year's teacher, 2) an mCLASS literacy report, 3) a parent goal sheet, 4) STAR Reading Report, 5) STAR Math Report, 6) classroom math assessment, and 7) a spelling inventory. Teachers are expected to bring these data notebooks to every professional learning community meeting. A participant from Focus Group 2 offered this explanation,

We also started data notebooks last year. That was a new thing and this year we have begun to use student data notebooks. I think those kind of things keep our PLC alive and a new element in there that forces us to continue to learn.

A second participant from that same group provided a more detailed account with the following statement,

I think the teacher data notebooks are an important part of the operation. I mean when you first hear about another form of record keeping, you think "Oh no, it's something else to do", but actually that is another key to our PLC's continuity.

Whenever you meet with your PLC and you sit there and look at each other and not really know what to do or discuss, that is frustrating. Now, we have specific sources of data to talk about and study. You come to realize what is happening in your grade level when you teach and assess specific objectives... We had a large number of students that just didn't do well with their math facts, so we needed to address the issue. I think that those pieces of information are going to be a key this year as far as keeping the PLCs alive. (Focus Group 2 Participant)

Participants shared that their PLC "data" conversations have definitely gotten stronger with time. They attributed this improvement to successes that have been experienced and to the increased understanding of the concept of a professional learning community. The researcher observed a group using a data notebook in their professional learning community meeting early in the study. Results from reading and math assessments provided by the district were discussed among the group. The teachers proceeded to have a detailed discussion about the students that scored 50% or lower on the math assessment. According to a participant in Focus Group 1,

I don't know if our focus on data has improved as a result of any one person or if it has gotten better with experience and due to the willingness to get in there and try some things that worked or didn't work. Our grade level had a lot of success with certain instructional strategies. The intervention groups that we created and the ways we divided up our students worked with improving certain skills. It was sort of trial and error. I think with success we have become stronger, and better able to work on academic issues. I don't know that any one person really taught us how to do that. We have learned it over time as a team.

Another explanation was offered by a participant in Focus Group 2,

I think the PLC has definitely gotten stronger over time. Initially, when we had PLC meetings, we didn't know what we were doing. We didn't have that much data to discuss because we weren't really a data-driven school at the time. So we would kind of sit there and say, "What do we talk about today?" We have students that can read really well and students that are non-readers. What are we supposed to do about that? We had no clue what about the purpose of a PLC and at that point not a lot of people liked the concept. They thought the meetings were a waste of time and they didn't see the benefit, but as our professional learning community has continued and the principal has given us more training and guidance on the concept, we have become more data-driven and we have seen the benefits. It has made our school stronger. I think as far as student performance goes, now our students achieve at a higher level. You still have students that don't perform well, but now we know what to do when they don't perform well.

While reviewing the school's master schedule, a 45-minute block of time was scheduled each day for intervention for every grade level. During the Focus Group discussions, the researcher asked the participants to elaborate on the intervention time that was scheduled into the school day. The researcher specifically asked who determined the skills and subjects that were targeted during that 45-minute period. The groups admitted to the principal's flexibility with the subject areas that were targeted during the intervention time and conveyed that academic focus depended upon the students' needs and overall objectives of the curriculum. The responses were similar and included comments such as the one provided by a participant in Focus Group 2,

We have talked to the principal about being flexible in our grade level. Some weeks we would be focusing on reading three days a week, math one day a week, and specific data from our notebooks the fifth day of the week.

Another explanation offered included the following,

The math objectives in my grade level are very specific. The reading objectives are broader, so it is pretty easy to determine the students who need to work on fluency, phonemic skills, and comprehension skills. We usually focus on reading for two weeks at a time. Then our team will create math groups. We use the ClassScape program to get our data for the math groups. We might have a student who completely bombed objective 5.01 in the math objectives, but then he/she might have also bombed objective 1.02. Typically in the math curriculum, these are two completely different skills. We struggle with which group to place that student. It's just a little bit harder to figure out what the best fit is for those students with multiple deficiencies, but the principal allows us to decide what is best for the student. (Focus Group 2 Participant)

Based on current research, the In Praxis Group (2006) found in the successfully developing schools where professional learning communities have been implemented, there were persons available to provide support to individual teachers. In one of the schools studied by the In Praxis Group, individual teachers' problems with teaching and learning were brought before the whole group of teachers for discussion and problem solving. This strategy enhanced individual teacher growth in teaching competency and reinforced the community's responsibility for teaching and for each other. The curriculum specialists play an important role in providing support to the school's professional learning communities at

PLC Elementary School. This support enabled participants to improve teaching practices and to implement newly initiated programs to fidelity. One participant summarized this concept stating,

Our learning is initiated by need a lot of the time. If the administrators feel like we are struggling in a certain area, they provide support. An example occurred last year with the spelling and vocabulary program. That was a new program for our school and the administrators were getting a lot of feedback that people did not really understand the steps to implement the program in the different grade levels. Simply put, it was not going well. So they (the administrators) brought in our curriculum specialist to do workshops with us. These specialists would come to our faculty meetings to offer additional training and they would meet with us during block. I think our learning is initiated just by what we have going on in this building at a particular time. If there is a need for new or additional learning, we make it happen. (Interview Participant 4)

Interview Participant 2 affirmed this practice with this comment,

The people that usually come in to initiate or follow up with training are some of the curriculum specialists who work throughout the district. We are very fortunate to have the literacy specialist here. This is where she is housed. We have a lot of access to the literacy information and strategies through her. Also, our math curriculum specialist spends a great deal of time here. They are all very good at being on call when there is something going on. They will get out here and provide that necessary staff development in order to support our learning needs. Sometimes, teachers within the school provide additional training as well.

Interview Participant 6 acknowledged the curriculum specialists' role in the adults' learning at the school also,

We are always given materials for new programs and the curriculum specialists come in and help guide us. When we implemented our new math program, the math curriculum specialist was here and she said she could come in my classroom and do a sample lesson for me. She also offered to meet with our grade level team after school and do whatever we needed to make the implementation a success. She also had our reading curriculum specialist come in and help us with the spelling program. The specialist showed us how to implement sample lessons and she even had a parent night where the parents could come and learn about all the new things we were doing. I feel like we are very supported whenever we implement new programs. It's not just "Here, take this and go teach it."

As noted in the researcher's review of the school's Improvement Plan, this document also serves as a guide for the professional learning communities within the school. The goals and strategies included in the plan include detailed data goals for every grade level along with deployment plans, designated people responsible for certain tasks, measures to evaluate the deployment, and a timeline to carry out the action steps. The School Improvement Plan was referenced by many of the participants in the individual interviews. Interview Participant 2 explained,

There are lots of data goals documented in the School Improvement Plan (especially percentages). An example is that we want to get our students to move from the 79th percentile in reading to the 81st percentile this year. We have long term goals and short term goals. Our PLCs are all about data, so this data drives us and keeps us

focused toward reaching school goals. Everything in the School Improvement Plan really comes back to our PLCs in some form or fashion.

Another participant offered an additional statement,

I guess our SMART goals are critical components which also play a role in the sustainability of our professional learning community. These are included in the school's Improvement Plan. In my grade level, the SMART goals involve the EOG scores and our goals that are listed in the plan document proficiency levels we are supposed to reach within certain amounts of time. These goals involve the percentage of students who pass the reading and math tests. In order for us to achieve those goals, there has to be constant PLC meetings and conversations taking place. We have to be constantly reviewing the data to make sure we are on track to meet our goals. It lists in our School Improvement Plan how much we want to increase our scores each year. When we meet within our PLC teams, this document keeps us on track and that data being right there in the Improvement Plan makes it easy to discuss and reference. If we are not talking about it and actively working toward our goals, then we don't know for sure we are going to be there at the end of the year. So the School Improvement Plan gives us constant reinforcements and reminders to keep us going. (Focus Group 1 Participant)

Learning is on-going at PLC Elementary School and it is initiated by the principal, needs among the teaching staff, and as directed by district leaders and state initiatives. Within this learning environment, the candidates shared some firsthand experiences involving learning initiatives at their school. When asked how learning is initiated at PLC Elementary School, Interview Participant 3 avowed,

In the past, the principal has chosen books when she really wanted to get everybody on board with a particular instructional program or practice. In our grade level, a better understanding of guided reading was needed because there were a lot of people in our building who did not know how to manage that reading time. A book study helped us address that need. I am certain that book was chosen because of the need to get guided reading going and to make sure that we were doing the right kinds of things during guided reading time in our classrooms.

Interview Participant 5 offered a similar explanation,

I feel like we are always learning something new, but basically our administration will tell us that there is a new program that we need to learn and implement. For example, we are doing some on-line training with modules, and the leaders at the district level told us that this is the new requirement for the state. We were able to determine how we are going to complete this training at the school level. Last year we had a whole lot of new learning going on. We had a new math program, a new reading program, and a new spelling program that we were responsible for teaching. We are always learning something new and reflecting on how to better ourselves and our teaching practices. The frequency of the learning just depends on the needs or requirements that arise. Our principal does a really good job at making sure we are continually learning. It is important to be a lifelong learner. She helps us and sometimes we decide if we want to do a book study and we get to decide what group we want to work in. That's how our learning topics are typically determined.

When Interview Participant 5 spoke about learning initiatives at the school, she explained the process while also highlighting the principal's willingness to listen and be open to suggestions,

I will say the administrators are very open to suggestions. An example would be what happened yesterday. Our principal shared that some formative assessment training is being mandated from the state in the form of an on-line training module. She asked our PLC if we would rather complete the training on-line or if we preferred to have the curriculum specialist conduct the training in workshop sessions. She gave us a choice even though this is something mandated from the state. She allowed us to pick the method that best meets our learning styles. When there have been other trainings offered to us, we have made choices also. She is really good about that sort of thing. That kind of understanding and willingness to compromise helps the morale throughout the school.

Collaboration. Professional learning communities are identified by professional collaboration that improves student learning. According to Leonard and Leonard (2001), Professional collaboration is evidenced when teachers and administrators work together, share their knowledge, contribute ideas, and develop plans for the purpose of achieving educational and organizational goals. In effect, collaborative practice is exemplified when school staff members come together on a regular basis in their continuing attempts to be more effective teachers so that their students can become more successful learners. (p. 10)

At PLC Elementary School, the principal communicates expectations to the professional learning communities that are specific to the structure and focus of their meetings. The

conversations that take place within these structures are centered on student achievement. A participant from Focus Group 2 shared,

The structure of our PLC meetings forces us to communicate about student achievement. Before we had so many things going that that sometimes data got pushed aside, but our PLC meetings are a time where we have to look at data. We look at it and are able to pull things out of that data and use it to a higher degree than we ever did before. I know I am looking at things in my classroom more and saying “Oh, I can do this” when trying to address students’ needs. I have not used data that way before. Because of the PLC, we are sitting down, having conversations, and changing our instruction based on student performance. We never had the time in meetings before and we allowed other things to take priority. There are too many other things that interfere if you don’t make data a priority for the PLC. Since that is the only thing that we talk about during our meetings, our focus has shifted and learning has become a priority.

Another participant from Focus Group 1 admitted, “These conversations go on everywhere.

We are having those conversations at lunch, at regular grade level meetings, out at recess...”

As evidenced in a review of staff meeting agendas, opportunities for collaboration are used in this setting also. The agenda is designed in such a way that a specified amount of time is designated for topics such as a “Intervention Spotlight” to highlight what is going on during the Intervention time each day, monthly reports and discussions of discipline data for the school, and working directly with the curriculum coaches to improve teaching practices. Despite the fact there are structured times for collaboration within the professional learning community meetings and staff meetings, the staff has begun to focus on ways to help

students on an individual basis and they have those conversations outside of the structured meeting times. Collaboration between staff seemed to occur naturally at PLC Elementary school. The staff seemed willing to address learning needs even when they had to cross grade level boundaries.

One thing the principal has let us do and the other grade levels have been really receptive to it is working together when we have students that have some sort of deficiency. One example of this collaboration occurred with the phonics program. Some of our students were missing big chunks of phonemic awareness skills, and this gap was hindering their reading abilities. The kindergarten teachers and some of our EC teachers were wonderful about letting our third graders come down to their classes in the morning and sit with them during their phonics lessons. This same thing could happen in math or any other subject. In this instance, we weren't trained to implement the phonics program and in this grade level, none of us teach it in our classrooms. We weren't going to be able to give the students the skills they needed. Working with the other teachers from different grade levels enabled us to give the students those skills. (Focus Group 2 Participant)

Collaboration with the principal seemed like a natural occurrence also. Interview Participant 1 offered,

Our principal collaborates with our PLCs routinely, but a lot of that collaboration is through grade level notes. We are expected to send her notes about our grade level meetings, and those meetings are supposed to be taking place every Wednesday. We either submit our minutes in PLC notes or grade level notes. We highlight our

questions or concerns in the minutes and she will get back to us to try to resolve the issue.

Interview Participant 3 shared this comment,

I think the principal really wanted for people to feel comfortable this year. If there are problems, she wants people to come to her and let her know what the problems are. She has told us repeatedly, "I want you to let me know when there are problems. I don't want gossip in our school and I don't want people to have undercurrents of things brewing below the surface." I think she is really trying to open the door to make people feel comfortable to come to her if there are problems.

The district level administrators also encourage and seek input from employees within the system as evidenced with the following admission,

Central Office staff seek teacher input in our district. When we adopted the Math Expressions program, each school was given the opportunity to vote on the program that was their favorite. With the reading program, the Central Office leaders wanted everyone to use the same adoption. The schools were given input and then the program that was supported by the majority of the schools was chosen as the district's reading program. With the math, the Central Office narrowed it to two programs and they actually let the schools pick between the two programs. We have two different math programs in the county which was a little different instead of having one; however, the two programs were so close it appears to be working well. The Central Office makes the final decision, but you still have a voice. That way it doesn't feel like a mandate and we have a voice in the decision making process. (Interview Participant 5)

Interview Participant 4 added there is a high level of trust as a result of the collaboration that goes on at the district level,

There are opportunities to give input at the district level, but I have never been a part of that committee. Our district has a committee that takes concerns back to the Superintendent. Our school has someone on the committee now. I have never voiced a concern to this committee. I accept the fact that there are going to be things that I'm not going to like, but if it's really not affecting the day to day instruction of my students, I just sweep it under the rug. On the other hand, I don't go out and complain about it either. I try to consider both sides. I firmly believe if I emailed the superintendent, I would get an email back from him about my concern.

At PLC Elementary School, collaboration takes place in a number of ways. Staff meetings are used as opportunities for learning, but they are also used to communicate successes and positive experiences. These meetings are structured to allow social time and staff interaction while also promoting vertical conversations within the school. Interview Participant 5 confirmed this opportunity for collaboration with this proclamation,

It's primarily our PLC time that allows us to get together and discuss our work and review student work. During our grade level meetings we do some of that also. A lot of times during our staff meetings we will have a "shout out" time where we will provide an example of something that the grade levels have done that's really good or that has really helped the team. After one grade level shares a positive experience that kind of sparks everyone else to sharing something. This sharing time has helped everybody and it allows people to have vertical conversations.

Interview Participant 6 offered,

We have our staff meetings every month and a different grade level is assigned to bring a snack. We socialize the first 10 or 15 minutes of the meeting. Everybody mingles around and that kind of gives you the opportunity to talk to people you don't see on a regular basis. We don't get to do that often because our school is so spread out that we don't get to see each other. The fifth and sixth grade teams are on the other side of the building and we don't ever see them except during staff meetings. That social interaction is very important to our school family.

Leadership. Conditions that are necessary to accept and embrace change within school communities include both logistical supports, such as scheduling and resources, and social and cognitive supports, such as opportunity, leadership and communication. DuFour (2001) says that there are fundamental steps principals can take, as staff development leaders, to embed leadership capacity in the structure and function of professional learning communities. The principal at PLC Elementary School has taken such steps. Time is provided for collaboration during the school day and after school hours. This time was evidenced in the school's master schedule. Every grade level has a 45-minute planning block and the professional learning communities are required to meet two hours each month, typically on the second and third Wednesdays of the month, after school hours. During the focus group discussions, statements were made indicating this time was necessary to collaborate and review data.

We are such a data driven school, and if you are going to be data driven and use the data effectively, then you have to have time to create plans to do something with it. I think that is what drives our PLCs. We need time to sit down together and look at the data. The principal makes this statement routinely, "We are not just collecting data to

collect data. Do something with it.” So, without the PLCs and that scheduled time to collaborate about it, there would be no benefit to our students for us to review the data. (Focus Group 2 Participant)

Another example of the importance the schedule that has been created for professional learning was shared by Interview Participant 6,

I think the fact that we have been given set guidelines, set times to meet each month on specific days, helps us sustain the PLC. This year, we’ve been given more guidelines. Last year, we could do it anytime within the month. That was hard for a lot of us because some people tried to fit it in during their planning time which is not enough time (45 minutes). It was broken up and fragmented. Planning would get interrupted; therefore, this year we were asked to schedule our PLC meetings after school. We originally were given Wednesday as the time to do it because Wednesdays are to be kept opened because that is our staff meeting day also. But we also have committees meetings and other things that interfere. We have committee meetings on one Wednesday each month, one staff meeting a month, and PLC meetings two times each month. That schedule and expectation kind of holds us accountable for that time and these changes seem to be working much better. Other than that, we have our notebooks that are turned in to the principals.

Interview Participant 1 reiterated the principal’s expectations for these meetings and shared the accountability methods that are used to ensure professionalism,

Being an active member of a PLC is an expectation and a requirement at our school. The administrators support us as to how to accomplish our teaching goals and they specify what we need to accomplish during our PLC meetings. I think that is the

biggest thing that helps keep our PLC functioning. We have a PLC notebook that has to be completed for each meeting. That accountability keeps us focused to deal with our data. This record keeping has kind of been hard, but it also is good because it keeps up focused and on topic.

Another participant offered additional evidence of this accountability,

We are all accountable in this school. We have a notebook that we have to keep all of our minutes and notes in. We have to turn that in to administration and we are required to meet two hours a month. I think having that accountability piece in the PLC is very important. We have to have that time to make our groups for our intervention and enrichment classes. We have to meet as a PLC to talk about these groups. The students can't teach themselves and determine their learning needs. That is the teacher's responsibility. (Interview Participant 5)

Leaders within PLC Elementary School, along with Central Office personnel, provide critical data to teachers routinely. This data is used to enhance student learning throughout the school.

A lot of academic problem areas are pointed out from the testing and accountability department at the district level. When they look at our test scores and break those apart, those specialists can get down to specific areas of concern. I would say that is where a lot of our PLC focus starts. I'm sure that information is shared with the administrators. Teachers see more grade level types of things. We kind of see the needs that we have, but usually things that cover the whole school would come from administration. (Interview Participant 2)

During a focus group, one participant made this admission,

Our principal is good to provide data and remind us of the data we need to be reviewing during our PLC meetings. This data indicates the areas students don't perform well in. Whereas before, we didn't drill down the data and I think we thought it was ok when the students didn't learn objectives. Now, we know exactly what is being learned because we have data to review. Sometimes we might know what the results are going to be before we ever give our assessments. Looking at data doesn't solve all your problems, but it definitely makes them easier to deal with when we work in a group. (Focus Group 2 Participant)

Occasionally, the principal will give specific directives pertaining to the data.

Our principal or assistant principals periodically says "Ok, in your PLC meeting this week you need to talk about..." The administrators give detailed instructions about the data that needs to be reviewed. I know when we received the data wall, that was a big discussion. We had to talk about the data that had been displayed, and the administrators gave us the homework on figuring out how we were going to use the data wall room. These directives and continual use of data has helped us learn effective ways to group children and redirect our teaching. (Focus Group 1 Participant)

The Annenberg Institute's (2003) work indicates that supportive leadership is necessary to create an environment in which leadership capacity is developed for all community members. Shared leadership capacity empowers all members of the professional learning community to share in the vision and mission of the school and make effective decisions that positively affect student learning and achievement. At PLC Elementary

School, the principal plays a critical role in providing and building capacity for leadership throughout the school community.

Some of the participants explained how leadership is distributed throughout the school and how decisions are made.

Our Building Leadership Team meets once a month. Each staff member is emailed and reminded to share concerns with the designated BLT members. We have a BLT chain of command so to speak. Grade level members take concerns to their BLT representatives and they take agenda items to the meeting. Those concerns are discussed and we are given an answer after the group agrees upon a resolution. Even school policies are changed by this group. A lot of dialogue occurs between the group members. We can always walk in and bounce things off our administrators also. I was told at the end of last year that if there is anything I want to talk about, to come in during my planning time and the issue will be discussed. The administrators have opened their doors to me. It means a lot to me that no matter what the problem, big or small, I can talk to my administrators. This openness is a great source of dialogue and can be used to change things as well. (Interview Participant 4)

Interview Participant 3 confirmed shared leadership within the school through this statement,

In my grade level, we just felt like there are certain things for grade level chair and there are certain things with the BLT that are similar. Combining the two roles prevents us from having to go through two different people. That set up works better for us. I'm not sure if it is that way for every grade level. We had a different situation this year because last year the principal decided that the grade levels would vote on who their BLT representative. Our person was due to come off of the BLT this year

because BLT members are limited to a two-year term. But our person is also our grade level chair and she does such a good job in both roles. With the principal's permission, the first grade team was able to vote the same person back on the BLT and as our grade level chair even though it was her year to rotate off.

A new leadership initiative has been implemented this year at the school. Interview Participant 3 provided details of this new opportunity to distribute leadership within the school,

We are starting something new this year. We have our Building Leadership Team and this year we are also using a Management Team to make decisions within the school. The Management Team has been created because it was determined the BLT was spending half of their meeting time dealing with management type issues. Management issues could include things going on while on the playground or simply as simple as a grade level is not getting out of the lunch room fast enough. Those types of management issues will be dealt with by the management team so the BLT can really work on solving the problems that involve academic issues, morale issues, and that type of thing.

Barriers. During the focus groups and individual interviews, obstacles were discussed that could affect the sustainability of a professional learning community. These obstacles pertained to the rigidity of schedules and accountability measures, time constraints, and job demands. The participants were not able to offer solutions to these issues, they simply noted their existence. A participant in Focus Group 1 noted the increased job demands with this comment,

It is a good job, but the demands have gotten greater. More and more is expected of you after school hours. I also have more school work that has to be completed at home. It certainly is not the job I started 16 years ago.

Another barrier to the sustainability of a professional learning community was documented when Interview Participant 4 stated, “I take issue with having such strict guidelines about what can and can’t be discussed within our PLC groups.” Another participant made this statement,

I don’t understand the requirements to keep the notes and meet twice a month. I think there would be some people that would have the best intentions and say “This is a good thing and we need to keep meeting in groups”, but I think with the time constraints we currently experience, people would find other things to do with their time if the PLC meetings were not mandated. I think that is just being honest. (Focus Group 1 Participant)

A participant in Focus Group 1 declared,

I don’t see how you could fix the time issue. I honestly don’t. With the way education is going now, more things get put on top of you and nothing gets pulled out from the bottom. I mean that is the reality of the job and it is not a criticism. It is just how it is. It has always been like that. I guess we adjust to the time constraints as best we can. But we have to realize that we can’t put any more hours in the day and we can’t put any more days in a week. I think time will always be an issue in schools.

Additional participants supported this declaration by saying,

How do we solve the time problem? The current principal specified which Wednesdays would be used for meetings the entire month. The first Wednesday is

devoted to BLT, the next two Wednesdays are PLCs, and the fourth Wednesday is held for our faculty meeting. If there is a fifth Wednesday in the month, we have it off. But now there are other committee meetings that are being scheduled on other days. You have to find time for that so really nothing is going to solve the time problem. (Focus Group 1 Participant)

Interview Participant 3 offered,

It really didn't work when we tried to squeeze our PLC meeting into the 45-minute planning time. We tried to continue from week to week and it really felt like it was fragmented. You really can't get to the meat of a PLC discussion when conversations are broken up. We would just get started with our discussions, and then it would be time to stop. We would think we could pick up the next week, but you can't. All of our grade level members felt like our wheels were spinning constantly. We felt like we could do a better job with the data when we could meet after school. So they (the administrators) have now made it to where everybody holds their PLC meetings after school. It seems to flow better when you use that common planning time for other things during school hours. So many things happen during that time that is was difficult to meet and stay focused on our data discussions.

When asked what participants would do to change their professional learning community, this is how Interview Participant 1 responded,

I'm not sure there is much that I would change beside maybe a little bit more flexibility with meeting times and dates. We do have some flexibility, but then I don't know how well that will work because if people are not grounded in a certain time and date, there may always be excuses as to why they can't meet. It would be

nice sometimes to say, “We really only need to meet for 30 minutes this week because we don’t have that much to discuss” or “We would rather meet at this time this week because it just works better for everybody”. A little more flexibility would be nice.

While accountability measures and scheduling routines were viewed as being rigid by some participants, others voiced support for these conditions. The majority of the teachers felt these expectations were needed to keep the teachers focused on the overarching goal of the school – student success. Scheduling structures for the daily intervention period, support of the curriculum coaches, maximized opportunities for learning for both students and teachers, and shared decision making were noted as important conditions for this success of all stakeholders at PLC Elementary School.

Research Question 3

Data from the focus group and individual interviews that address the research question, “What, if any, are the long-range effects on teacher practice through the change in culture that results in sustainability?” are provided in this section. Findings from the individual interviews and focus group interviews are framed around the four identified themes: 1) Learning Focused, 2) Collaboration, 3) Leadership, and 4) Barriers.

Learning Focused. The Annenberg Institute (2003) published research that demonstrated professional learning communities provide opportunities for adults to learn and think together about how to improve their practice in ways that lead to improved student achievement. During the individual interviews when asked if their teaching practices had changed as a result of being a member of a professional learning community, the unanimous answer was “yes”. As shared by one participant, “I think the PLC has helped us to see the

differences in each group of students. We realize now that this lesson we've taught for the last ten years might not work for this group." (Focus Group 1 Participant) Another participant exclaimed, "When you look at the data you might realize some students are really doing something well, but my class isn't. Obviously, there is something I need to change as far as my instruction goes." (Focus Group 1 Participant)

Schmoker (2004) states, "There is broad, even remarkable, concurrence among members of the research community on the effects of carefully structured learning teams on the improvement of instruction." (p.430) Interview Participant 1 shared how her teaching practices have changed,

I think my teaching practices have changed just because I have learned to look at our student body more as a whole and because data is such an important part of our PLCs.

I have learned to use student performance more in my classroom instruction.

Obviously, there are some things that we just have to teach because it is part of our Standard Course of Study and we know that all our students are not ready for it, but it is our job to expose them to the concepts. But I have really learned to use the data to meet kids where they are instead of just starting on page one because that is where the book begins. I think that is the most important thing that I have learned from being a member of a PLC.

The same participant offered a more elaborate explanation with the following statement,

I use a lot of assessments in my classroom, but it's not just assessing students to assess them. You actually have to do something with the data you collect. I use a lot of assessment data to figure out where some of the instructional holes are. I guess

before I became a member of a PLC, if I had a student that was struggling in math, it was easy to say that he/she was below grade level and leave it at that.

Another participant declared,

My teaching practices have changed when it comes to the data. I have never looked at data like I do within my PLC. I don't know if I even knew how to look at data before. A lot of times it was just a number on a paper and I would look at those numbers and say, "These students aren't doing well, or these students are doing well". Now, I really look at specific students and determine their skill levels and learning needs. That is definitely the biggest change in my teaching practices. The other change is at one time in my teaching career I would not have felt as comfortable admitting to my own weaknesses as I do now. I didn't pay much attention to things going on within the building. But in our PLCs, the atmosphere is relaxed and not competitive. I am learning from people I work with all the time, so I feel comfortable sharing those experiences. I think before PLCs were implemented, a lot of us were stuck inside our four walls. Looking at the data and doing something to address learning needs has definitely changed all that.

Interview Participant 3 shared the changes within her teaching practices with this assertion,

Utilizing the data has made me more aware of the effectiveness of my teaching. It is so easy in my grade level to assume that all the students are understanding an idea or concept because they look like they are getting it. However, when they work independently you find out they do not understand some learning objectives. I think the PLC has really opened my eyes to the importance of using formative assessments and addressing gaps as we go.

Interview Participant 5 affirmed that her instructional practices had changed and she is doing a better job of differentiating her instruction based on assessment data.

I always did some differentiation in my classroom, but I feel like I am using my data much more effectively now. I always made observational notes, but I did not know how to tear that data apart to determine what students know and where they need additional help. Now, I find myself using data in ways that I never thought I would. Last year I saw so much more growth than I have ever seen in a group of students before. I am certain it is because of our PLCs.

As witnessed in a professional learning community meeting at the onset of the study, the teachers established lists of students who were not successful with their reading and math objectives. Through the use of the data notebooks and reports provided from district assessments, the teachers determined the struggling students would be grouped in such a way that they would receive additional instruction during the daily intervention period. The students who scored 50% or lower on the math assessments administered during the first two weeks of school would be grouped for extra instruction while the students scoring higher than 50% would be involved in enrichment kinds of activities with teacher assistants and other support staff. The reading data was also used as documentation in the development of the guided reading groups for the grade level. This level of reflection, collaboration among teachers, and change in teaching practices promotes sustainability of this professional learning community.

Collaboration. Elmore (2002) stresses the importance of collaborative environments and believes those who share the same concerns and challenges will learn more effectively if they work together in a professional development experience and teacher quality can be

positively affected. Teachers at PLC Elementary School work collectively to address students' academic needs. Interview Participant 6 said, "Collaborating with my co-workers helps me individualize instruction because we talk and share ideas." Interview Participant 5 added, "They're not just my students anymore, they are all our students because we go through that data together and work through instructional issues together." Trust has been established between the teachers and this enables them to talk openly about test data. These open conversations about instructional strengths and weaknesses gave promoted changed practices. A participant from Focus Group 1 explained,

You are throwing out data and what is going on in your classroom. Sharing those kinds of things makes you vulnerable. You have to be able to trust the people that are in there listening to what is going on. You have to be open as a teacher to see your own weaknesses and if we are looking at the same data and the students in Teacher Y's room are doing much better than mine, I have to be open to him/her and say, "Hey, what are you doing? Help me out."

Interview Participant 4 elaborated on the support that is sought when students are moved from one academic group to another,

Intervention groups change based on the students' performance. The groups are somewhat flexible because students have strong and weak areas within curriculum objectives. We seek parent, administrative, and teacher support for these decisions. We wouldn't just move a student to be moving him or her. We move students because we feel like it is the best interest of all parties involved.

Teachers at PLC Elementary School are aware that students' needs have to be met on many levels (social, emotional, and academic) in order to learn at their fullest potential. One

participant noted a raised awareness to educate the whole child during an individual interview,

One of the things that we discuss in our PLC is the home lives of our students. When I was going through my first couple of years of teaching, I would not concentrate on the things I couldn't control. That's an easy thing to get into. Now, I realize I have to look at things like home situations and keep that in mind as I'm working with these students. I'm not looking for credit here, but if you really keep students' best interests in the back of your head, you can help them. Don't allow students to use their personal situations as a crutch, but help them if they are experiencing economic problems or other difficulties. I had to change my thinking a little bit here in order to get them where they needed to go academically. (Interview Participant 4)

On-going collaboration and early intervention allow the staff at PLC Elementary School to individualize instruction and address academic problems routinely.

Our faculty meetings and PLCs are used to discuss student work. This is where we bring all of our data together and that's when we talk about what we are doing in reading and math. We ask ourselves, "Is our instruction really working"? We look at our test scores and at individual student work samples to determine if problems exist throughout the grade level. Regardless if there is an issue throughout the grade level or just a couple of students who are struggling, we plan some type of intervention. We review computerized tests the students take and different types of daily class work to see how students are performing. Based on this performance, we group our students for intervention and enrichment. We pinpoint skills to determine if these

students need additional instruction in fluency, accuracy, and comprehension.

Basically that is our professional learning community. (Interview Participant 5)

As evidenced in the following comment, the methods for tracking data allow for continuous conversations between staff. These conversations play a role in the changed instructional practices throughout the school. Interview Participant 6 stated,

I think the biggest change in practice within our school involves our data. We have added documentation such as our student data logs, data notebooks, and our data wall that are going to help with our PLCs discussions. If we are continuing to keep up with that data and talk about ways to use that information to drive our instruction, then that will help sustain our PLCs. We will know how to meet our students' needs.

Leadership. Tomlinson (1999) suggests that educational leaders can best support changed practices by nurturing different teaching models; encouraging teachers to apply differentiation with flexibility, creativity, and choice; and provide teachers with high-quality professional development as well as time to collaborate, plan, and implement differentiation. The focus group discussions and interviews provided evidence of the supportive role leaders play within PLC Elementary School. This support has allowed teachers to change their instructional practices.

The PLC concept was so unfamiliar to us that first year. We set rules for our group, but we really didn't know what to talk about. We would kind of sit there and look at each other. We knew we had to talk about students and how to help them, but we didn't know how. Then the administrators started giving us a little bit more focus and guidelines. As the data was provided to us, it was easier to have these conversations. We would talk about the data and how we could use it and then we would come in

here and sit with the administrators and look at the data wall and talk about it. We would discuss certain students and be ready to come back and discuss specifics concerning their academic strengths and weaknesses. This year it was even more focused. We were going through our common assessments results and we had lots to talk about. The principal's support and guidance gave us an understanding of what to do and discuss. (Focus Group 2 Participant)

Another participant from Focus Group 2 offered this statement,

I think the principal gave us a lot of the guidance we needed in the beginning. I remember the first year the administrators told us we were going to become a Professional Learning Community. They instructed us to sit down and talk. We would sit down and talk, but now our conversations are very different because they have given us more information to talk about. I know last year the principal came into third grade and said, "I want you to look at this data, and I want you tell me what you are going to do to improve this group of students' achievement. I want a plan of action turned in by October and I want to review that plan." She has given us more stepping stones and directives over time. This year we initiated our own plan without having to be directed to do it.

During several conversations, it was reiterated that access to various data has been helpful in changing instructional practices. This access to student data offers the teachers insight into the students' mastery and understanding of the contents in each grade level. A participant in Focus Group 1 offered,

Well, access to the data really helps. We have an abundance of resources and assessments that provide student data. I think that is a driving force of our changed

instructional practices. If we didn't have enough data, it would be hard to focus on continual improvement.

The various data sources were expanded upon with this statement,

We have certain assessments we use that are provided by the district and we have some teacher made test that we use also. We have the ClassScape program and mCLASS program that we use throughout the school. Our data comes from a combination of district and school sources. (Focus Group 1 Participant)

Without question, leadership has played a role in the changed instructional practices at PLC Elementary School. Interview Participant 4 revealed the following,

Functioning as a PLC encourages leadership throughout the school. I would say parents also share a role in shaping instructional practices. Parents have come to me and said "My child is doing this, this, and this..." They know what their children are doing in my classroom and that kind of open conversation gives me the information I need to craft my instruction. That is another way my teaching has been impacted by being an active member of a PLC.

Barriers. During the focus groups and individual interviews, obstacles such as limited resources, time constraints, being too data driven, and having too many initiatives going on at one time appeared to threaten the professional learning community's sustainability. DuFour's (2004) statement acknowledges such threats to a professional learning community's sustainability:

The professional learning community model has now reached a critical juncture, one well known to those who have witnessed the fate of other well-intentioned school reform efforts. In this all-too-familiar cycle, initial enthusiasm gives way to confusion

about the fundamental concepts driving the initiative, followed by inevitable implementation problems, the conclusion that the reform has failed to bring about the desired results, abandonment of the reform, and the launch of a new search for the next promising initiative. Another reform movement has come and gone, reinforcing the conventional education wisdom that promises, “This too shall pass.” (p. 6)

Obstacles still get in the way, despite the change in practice and improved instruction that has resulted at PLC Elementary School. Budget cuts have decreased the number of school personnel, thus, making it difficult for teachers to differentiate instruction and divide students into small groups during intervention times. When discussing how the intervention time works, a Focus Group 2 Participant stated, “We do have assistants to help with that kind of thing, but not nearly as much as we used to.” Interview Participant 2 expanded,

Well, with the teacher assistant situation, we are getting less and less help from those individuals. That was always one way to have the classroom covered if you wanted to observe another teacher. If you wanted to see a particular lesson or best practice demonstrated, you could use the teacher assistant to cover the classroom. That is not the case any more. The principal supports that we want to observe our peers, but the cuts in personnel have made that difficult.

Another comment was offered indicating that the limited personnel situation has impacted the intervention structure also.

We found the limited number of people we had available to help us address learning deficiencies could be a problem at times. We saw the number of intervention groups we needed to have in our classes, but we didn’t have enough people to work with each group. We need more groups with smaller numbers of students. We have

students that really need help, but there are five of us and we really need six or seven groups. What do you do? That's an obstacle when there are so many in different levels and you can't put enough people together to provide the appropriate instruction. That's frustrating when you know what needs to be done, but you just can't do it. (Focus Group 2 Participant)

Time was noted as being another obstacle when trying to change instructional practices. A participant in Focus Group 2 affirmed,

Another obstacle is the lack of time. At certain times in the school year when you just don't want to meet because you have so many things going on, that can be a problem. Then there have been times when the data is definitely telling us something and we don't know how to solve the problem. We do have curriculum specialists and our administrators that we can call in and ask for help, but schedules don't always allow this to happen. Knowing full well there is a problem, but having time constraints along with not knowing how to implement something to fix the problem can be very frustrating.

One participant voiced frustration with being too data driven. This individual felt like the constant work with data stifled teaching practices and prevented teachers from trying new techniques.

I have a concern we are becoming too data driven. Have you ever heard of paralysis by analysis? Are we going too far? You know when we sit in these meetings and discuss numbers all the time, we end up skewing what we are supposed to be doing – teaching our students. I'm not saying it's always happening, but it is a real possibility. I firmly believe that we should take little bits and pieces of a variety of programs and

put it them together to create a balanced program of instruction. You have to have a balance within your classroom. I feel the same way about data. I think if you are bombarded with data all the time, you will be turned off to it. Even though data may not lie, it may not be useful to you if you grow tired of it. If I get too much of something it's not going to drive me; it's going to send me running the other way.

(Focus Group 2 Participant)

Interview Participant 4 stated,

Some of our learning focuses or topics come from the district leaders. Last year, I had to go to Math Foundations training. That opportunity has dried up since the funding has been cut. Last year we were given the book to help with reading strategies, but we never ended up studying it because of other things being piled on our plates. I do what I am told to do. In all honesty, for the past two and half or three years the only thing I have ever gone to that focused on teaching me how to teach was Math Foundations. Everything that we are given now is so data driven. I look at so much data that I don't know what to do sometimes. Like I said, I haven't gone to a workshop or talked to teachers about how to teach in a very long time.

Several participants noted the constant change in initiatives within the district and voiced frustration over these changes. Interview Participant 2 commented,

I think having too many initiatives is a problem. I really feel it is probably a concern everywhere. A lot of times we are trained in specific techniques or programs and they are a focus for a while. By the time we really get comfortable with the skill or program, a new program or initiative comes along. I really do think that is a flaw in this profession. I feel like we never get really good at anything because we don't have

time to see it through. I think we have too many changes with curriculum and materials.

A Focus Group 1 Participant shared,

I pray that they stick with the PLC concept because the trend of education is to change programs continuously. We adopt a program and we use it for a year, two, maybe three. Then we will adopt something new. I hope our professional learning community is here to stay.

The professional learning communities at PLC Elementary School are very data driven. Two participants expressed a concern about being too data driven; nevertheless, the majority of the participants felt the use of data was a very important element to the professional learning community's sustainability. The access to data has allowed the staff to use this information to change their teaching practices through differentiated instruction. The students are grouped in such a way that academic weaknesses are addressed as soon as they are evident, and the participants felt this played a role in the students' improved achievement. Again, the successes of the professional learning community's efforts seemed to overshadow the barriers.

Summary

The purpose of this study was to determine the culture that creates conditions for the sustainability of a professional learning community, to decide if leadership plays a role in supporting these conditions, and to discover if the long range effects on teacher practice through the change in culture results in sustainability. This chapter has provided results from the data as presented from the participant observations, focus group interviews, individual interviews, and document review.

Supported by research findings from the principles of grounded theory (Strauss & Corbin, 1990), four themes that emerged from the data provided a comprehensive framework for this study to understand the teachers' insights into the sustainability of their professional learning community. Based on the data collected, there is strong evidence to support a school's continual focus on learning, collaboration, leadership, and awareness of the barriers plays a critical role into the sustainability of a professional learning community. A more analysis of the findings, their implications, and suggestions for further research are presented in the next chapter.

CHAPTER 5

ANALYSIS, IMPLICATIONS, AND FURTHER RESEARCH

The current literature provided research supporting the role of professional learning communities as a means of effective professional development, the benefits to students and teachers, the stages of implementation, and role of the leader in the implementation of the professional learning community; however, there was limited research pertaining to the sustainability of the professional learning community. The purpose of this study was to investigate the sustainability of a professional learning community in a rural elementary school. Data collection for this study included participant observations field notes, focus group interviews, individual interviews, and document review. To provide focus for this research, the following questions were developed:

1. What is the culture of a school that creates conditions for sustainability of a professional learning community?
2. What is the role of leadership in supporting these conditions?
3. What, if any, are the long-range effects on teacher practice through the change in culture that results in sustainability?

In this chapter, a brief overview of the findings from this study is provided. The four themes that surfaced while analyzing the data using the principles of grounded theory (Strauss & Corbin, 1990) serve as the basis for the discussion. A detailed discussion summarizes the findings in relation to each of the corresponding themes as they connect with the research questions. Findings as they relate to the current research regarding professional learning communities are also addressed and the overriding implications for practice ascertained from the study are discussed. A review of the limitations of the study is presented

and opportunities for future studies are presented. Final conclusions drawn from the study are included.

Analysis of Findings

The conception of schools as professional learning communities is broadening the understandings of the interactions and relationships that exist within the school environment, and how those interactions and relationships impact learning for both students and staff. There is increasing attention given to the types of environments that exist within schools, and the need to articulate change, reform, and improvement initiatives around the context of improved student achievement within professional learning communities. Professional learning communities place an emphasis on the nature of individuals within an organization, relationships, and organizational structures. They expand the understanding of ways that members within the professional learning community can work together to facilitate change and promote higher student achievement.

Marzano's (2003) research reinforces a research-based link between collaborative cultures and organizational climate, and school effectiveness and increased student achievement. Senge (2000) stresses the need to see the "learning organization approach to education" as more than just talking and working in groups, but rather involving everyone in expressing their vision and goals, building an awareness of what is going on within the school, and developing their capabilities together. DuFour (2004) writes that when a school begins to function as a professional learning community, "teachers become aware of the incongruity between their commitment to ensure learning for all students and their lack of a coordinated strategy to respond when some students do not learn" (p. 8). The difference between traditional schools and professional learning communities is evidenced when a plan

is implemented to address students' learning deficiencies as they occur among a community of learners. Throughout the process of collecting and analyzing data from this study, multiple themes emerged. Using the process of selective coding, four overriding themes surfaced: 1) Learning Focused, 2) Collaboration, 3) Leadership, and 4) Barriers. From the observations, participant and focus group interviews, and document reviews, these four themes described and defined the framework for the sustainability of the elementary school's professional learning community.

The impact of professional learning communities cannot be considered separately from purpose. Professional learning communities are a means to an end. Morrissey (2000) writes, "The goal is not to be a professional learning community." The key purpose of professional learning communities is to enhance staff effectiveness as professionals, for the ultimate benefit of students; therefore, the sustainability of this type of school reform is very important to educational leaders. The overall findings of this study support the most current research. Hipp, Huffman, Pankake, and Olivier (2008) report that "the process of reculturing schools as professional learning communities is a journey as evidenced by the time and energy exerted to move schools from one level to the next – from initiation to implementation to institutionalization or sustainability" (p. 20). In the schools where this team conducted their research and determined professional learning communities were being sustained, they found "impressions" within the schools that include 1) learning that was centered on the students, 2) teamwork and shared responsibility, 3) teachers learning together and solving problems, 4) shared leadership, and 5) leadership that sets the tone and direction for the school's climate. These "impressions" include a strong tie to culture, leadership, life-long learning, teamwork, and collaboration.

Learning Focused

Reeves (2000) says that schools must have a clear view of what success looks like in order for there to be success in the classroom. According to DuFour (2004), teachers' dialogue in professional learning communities should focus on three critical questions: 1) What is it we want our students to learn?, 2) How will we know each student has learned it?, and 3) How can we improve our current levels of student achievement? The teachers at PLC Elementary School have become learning focused and they use collaborative teams to routinely focus on these three questions. They use the state's mandated curriculum and prioritize learning objectives in such a way that the critical objectives are taught in each subject area. The teachers then use common assessments to describe and measure student success after the curriculum objectives are taught. The teachers plan instructional strategies and divide children into intervention groups based upon that data and the teachers evaluate whether the activities they are using truly enable the students to be successful. Professional learning communities that have been created in each grade level allow the teachers to work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve.

Within a professional learning community, the learning of teachers is as important as the learning of the children. Mitchell and Sackney (2000) state, "A professional learning community consists of a group of people who take an active, reflective, collaborative, learning-oriented, and growth-promoting approach toward both the mysteries and problems of teaching and learning" (p. 2). The Annenberg Institute (2003) found a key benefit of a

professional learning community is the promotion of improved results in terms of school and system culture, teacher practice, and student learning. Therefore, it is imperative that educators unveil the keys to sustaining a professional learning community. Bennett (2010) indicated five areas that sustain professional learning communities in schools: collaboration, relationships, supportive conditions, supportive leadership, and a focus on student learning. The overall findings of this study support that a professional learning community can be sustained in a collegial, learning-oriented environment where leadership plays a role in creating the conditions for this sustainability through supportive structures and changed teacher practice.

Throughout the interviewing and observation process, participants shared multiple stories demonstrating how the culture of the school has shifted from a one that was previously focused on teaching to one that presently focuses on learning. The culture at PLC Elementary School has moved away from the traditional view of teachers as isolated practitioners toward a collaborative, learning-centered model. The teachers have come to realize the professional learning community is not a thing; rather, it is a way of operating. A shared sense of the vision and goals of the learning community has been constructed by its members. One participant from the study shared,

I think the overall attitude of the group contributes to the sustainability of the professional learning community. Our vision is to make sure all students succeed and that all students learn. It's just a matter of finding out how they learn best (Interview Participant 5).

Continuous learning has become a job embedded value and the teachers use data from common assessments to determine the students' academic strengths and weaknesses. The

teachers feel a collective responsibility for the growth and learning of all teachers and students in the school. The staff at PLC Elementary School have seen how the professional learning community concept has benefitted the staff and students. They have seen many successes and they continually work toward higher student achievement. As reported, the teachers have seen the benefits of the professional learning community and will continue to focus on student learning, even if the leadership changes. Participants communicated a sense of support from their leaders when they were involved in new initiatives and when they were learning to disaggregate data. They felt this support has enabled the professional learning community to strengthen over time. During the Focus Group 2 interview, a participant declared, “I’m doing stuff I didn’t even realize I should be doing before and there is no way I would go back to my old ways.”

Without question, the most compelling findings in this study involve the way data is being used to drive students’ instruction and improve teaching practices at PLC Elementary School. The teachers organize data around essential questions about student performance and regroup their students based on this performance. Both reading and math performance levels are compared among all the students in the grade level and intervention lessons are prepared to either remediate or enrich the students’ learning on a daily basis. Through engaged, routine dialogue during the data collection process, the teachers have built on the belief that by addressing these academic issues routinely they are more likely to meet the needs of every student. At PLC Elementary School, the use of data is now an integral part of the culture in this school. Data is used to determine professional development needs, intervention requirements, and resource allocation. The use of data focuses discussions about teaching and learning, guides teacher instruction, and monitors students’ progress. Most importantly,

teachers have a shared belief about the value of using data to improve learning for the adults and students within the building.

All the participants involved in the study agreed their teaching practices have changed as a result of being involved in the professional learning community. Teachers are provided time to examine common assessment data collaboratively at PLC Elementary School. A collaborative approach to data disaggregation promotes a sense of shared responsibility by helping teachers see their instruction as part of a larger effort to serve students more effectively. Huffman and Kalnin (2003) found that team members reported growth in their districts' curricular coherence and their own professional knowledge due to studying data in teams. Wayman, Midgley, and Stringfield (2007) found that data use was most effective in schools where staff had access to usable data and then worked together to calibrate expectations, review concrete evidence of student learning, and participate in instructional decision making. The teachers at PLC Elementary School do have a shared sense of responsibility for their students' learning. One Focus Group 1 participant offered, "Being involved in a PLC helped us to get away from the mindset that these are "my" students in "my" classroom. You can see common issues that the grade level has as a whole."

The teachers at PLC Elementary School use data routinely to drive their instruction. They group children in ways to better meet their learning needs and they find supplemental programs to individualize instruction. Across the literature, individuals suggest guiding principles to support differentiated classroom practices such as grouping students in flexible groups (shared interest, topic, or ability), integrating ongoing assessments with instructions, and continually assessing, reflecting, and adjusting content, process, and product to meet students' needs (Anderson, 2007; Rock, Gregg, Ellis, & Gable, 2008; Tomlinson, 2000).

During the study many of the participants spoke of doing a better job with differentiating instruction for their students as a result of being a member of the professional learning community.

Many of the participants made statements that directly linked their changed practices to the sustainability of the professional learning community. Interview Participant 1 stated, “I have really learned to use the data to meet kids where they are academically. I don’t think I could ever go back to the way I used to teach.” Interview Participant 5 shared, “My students are grouped much better based on their academic needs and I can gear my instruction to their meet their needs.” Teachers are able to intervene as soon as students have academic struggles and instruction is individualized as a result of conversations that are held in the professional learning communities. Interview Participant 1 supported the professional learning community’s sustainability through changed practice with this proclamation, “I’m doing stuff I didn’t even realize I should do before, and there is no way I would go back to my old ways. I would never go back to not using the data to drive my instruction.”

The learning focused culture at PLC Elementary School fits into the structure and purpose for the utilization of professional learning communities. Using school and classroom data with a specific instructional focus provides conditions for continuous improvement within the school. Sparks (2005) supports that well-implemented professional learning communities are a powerful means of seamlessly blending teaching and professional learning in ways that produce positive learning outcomes for students, teachers, and school leaders.

Collaboration

Creating a culture of collaboration is a critical element of a professional learning community. The end result of student learning can be reached through the avenue of

educators collaborating on a regular basis. DuFour (2004) argues, “Despite compelling evidence indicating that working collaboratively represents best practice, teachers in many schools continue to work in isolation” (p. 9). Not only do teachers need to work collaboratively with administration, the principal must create time for teachers to work together with their own peers. When individuals work collaboratively in a school, they are more likely to experience school improvement.

Much research has been done in the area of collaborative teams indirectly linking teacher collaboration to student achievement. Senge (2000) says, “A strong professional community encourages collective endeavor rather than isolated individual efforts” (p. 327). According to Haberman (2004), an attribute of a learning community is collaboration where, star teachers become involved in team teaching and other collaborative efforts in program development. Achinstein (2002) observes a renewed interest in fostering teacher community or collaboration as a means to counter teacher isolation, improve teacher practice and student learning, and build a common vision for schooling. Teachers engaging in professional collaboration have a greater capacity to improve student learning. Students will benefit when teachers come together to share ideas about instructional best practices and student assessments.

The culture at PLC Elementary School is very collaborative. The teachers work as a team and they realize the “togetherness” of how they work as a group makes their learning environment special. Servage’s (2008) research supports this uniqueness by stating, “Collaborative teacher learning calls participants to develop a strong sense of community, the glue of which is collective responsibility for student learning” (p. 64). The teachers trust each other and as one participant stated, “We look at the students differently” (Focus Group 2

Participant). The staff has developed a shared responsibility for all students and they take ownership of the learning of the entire grade level, not just in isolated classrooms. Focus Group 1 Participant avowed, “I think taking ownership for all the students as opposed to just our class is the unique thing about a PLC. We talk about the whole grade level rather than what goes on in our classroom.” The collaborative relationships within PLC Elementary School are centered on developing informed decisions and a knowledge base that positively impacts practice. The teachers work collectively with curricular outcomes, instructional processes, and best practices. Stiggins (as cited in DuFour et al., 2005) discusses teacher team work and assessment and “the extent that teams 1) analyze, understand, and deconstruct standards, 2) transform these standards into high-quality classroom assessments, and 3) share and interpret results together in order to help students continue to grow as learners” (p. 82). Students learn when teachers learn together and share with one another.

The staff at PLC Elementary School enjoy spending time together and their relationships exist outside of school hours. Four of the participants shared an obligation to induct new staff members into the culture of the school. Interview Participant 3 stated, “I think it is the responsibility of the grade level to bring a new person into the culture of the school. We want him/her to feel important and successful. We want to include them in our school family.” The goals to achieve and feel successful are woven into the fabric of the school. The importance of learning and growth are the center of the school’s life.

The collaborative culture at PLC Elementary School plays a role in the sustainability of the professional learning community. The success of the school depends on more than a collection of unconnected individuals. The word “community” implies a commonality of

interests among the teachers and the building of community involves all members of the staff. On a practical level, the synergy of cooperation between teachers at PLC Elementary School enables the educators to accomplish more for the students than they could on their own. The improvements and relationships that have been created by working collaboratively in the professional learning community definitely plays a role in its sustainability.

Leadership

Leadership within PLC Elementary School is shared. Supportive leadership has created an environment in which leadership capacity is developed for all community members. The Annenberg Institute (2003) offers,

Building internal capacity for leadership necessitates that groups share responsibility for leadership. This means building the capacity of school leaders to learn together and construct meaning and knowledge needed to support collaboration around improved instructional practices. This requires honing skills in communication, group-process facilitation, inquiry, conflict mediation, and dialogue.

Teachers feel they have an equal voice and are afforded opportunities to function in a variety of leadership roles. Teachers feel empowered at PLC Elementary School and they work to solve problems in a professional manner. The staff embeds the school's vision into their work and reinforces the behaviors that are necessary to move forward as a school. Paterson (1998) stresses the importance of school culture and shares that successful efforts to change what happens in the school environment and make school improvements are directly linked to school culture. The teachers at PLC Elementary school are progressive in their thinking, learning, and problem solving. All these conditions play a role in the sustainability of the professional learning community.

Leadership at PLC Elementary School plays a role in creating conditions for the sustainability of the professional learning community. Conditions that are necessary in order to accept and embrace change within professional learning communities include both logistical support, such as scheduling and resources, and social and cognitive supports, such as opportunity, leadership, and communication. Louis and Kruse (1995) synthesize a link in the school's leadership role to the professional learning community. Leaders within the school create conditions to sustain the work of the professional learning community.

Physical conditions and human capacities that support the professional learning community at PLC Elementary School include teachers supporting other teachers, time to meet and talk, teaching roles that are interdependent, and teacher empowerment. Louis and Kruse (1995) report in successful professional learning communities there are people available to provide support to individual teachers. In PLC Elementary School, curriculum specialists play this role. Many of the participants referenced the support provided by these individuals. Interview Participant 3 enthusiastically declared, "We have three really wonderful instructional coaches here. Throughout the year they either come in during our planning time or after school to show us what we need to know as far as best practices go." Another comment offered was, "The instructional specialists demonstrate how best practices should look and they offer to model lessons in the classroom." (Interview Participant 2)

Another condition that has been created within PLC Elementary School is the opportunity to meet and talk about data on a routine basis. The data wall was created as a visual reference for staff to monitor students' progress. Data notebooks have also proven to be a beneficial resource for staff when studying and tracking data. Staff view these documents as additional information to guide student progress. The data notebooks are very

accessible and seem to keep the staff focused on all students' learning during their PLC meetings.

Participants disclosed on numerous occasions that the daily intervention time was a critical condition for student learning. The school's principal, along with the Building Leadership Team, constructed a master schedule that incorporates a 45-minute block of time in the daily schedule for intervention. Teachers are given the flexibility to set up the intervention schedule based on the needs of the students. The principal does not require a specific schedule to address needs in reading and math. It is understood that data has to be the driving force behind the intervention time, and instructional strategies are geared toward reading and math; nevertheless, the principal does not mandate a specific schedule.

Monthly staff meetings also provide conditions for the staff to learn together. Supportive conditions developed by leadership also play a critical role in the sustainability of the professional learning community at PLC Elementary School. These conditions determine when, where, and how the staff regularly come together as a unit to initiate learning, decision making, problem solving, and creative work. DuFour (2001) says there are fundamental steps school leaders can take to embed collaboration and leadership capacity in the structure and function of their schools. They must: 1) provide time for collaboration during the school day and school year, 2) identify critical questions to guide the work of collaborative teams, 3) ask teams to create products as a result of their collaborations, 4) insist that teams identify and pursue specific student achievement goals, and 5) provide teams with relevant data and information. The school's principal holds each grade level's professional learning community accountable for meeting two times each month after school hours. These meetings are typically held on the second and third Wednesday of the month. Additional

accountability measures are taken by the principal to ensure the professional learning community is sustained. Those measures include the PLC notebooks comprised of meeting agendas and minutes. These documents are reviewed by the administrators routinely. This level of connectivity instills in the participants a level of accountability to the school's vision.

Staff members collaborate routinely during their common planning times and during the two PLC meetings that are held each month. The principal, with input from the Building Leadership Team, has crafted a master schedule that includes common planning times each day for every grade level. While the 40-minute block doesn't necessarily allow enough time for a PLC meeting, it does allow the staff time to have short conversations about their intervention plans and activities. Teachers also discuss other topics relevant to activities going on in their grade levels.

The school's administrators provide data to teachers and this condition also plays a critical role in the sustainability of the professional learning community. The principal provides specific expectations about what is to be discussed in the PLC meetings and even gives detailed directives as to what data needs to be reviewed on occasion. Support from the school's administrators was evidenced in many of the interviews. Participants spoke of the administrators' visibility during meetings and accessibility when they encountered problems within their groups. This condition allowed teachers to express concerns in a non-threatening environment and that has resulted in a high level of trust among the staff. A participant from Focus Group 2 acknowledged, "The support we have from our administration is a driving force for our PLC. We do have a lot of support from them. I think by supporting us and letting us learn from each other, it really builds trust."

Another critical condition provided by the leadership at PLC Elementary School involves a protocol for solving problems within the school. The Building Leadership Team (BLT) was referenced by every participant during the interviews. The BLT is made up of one teacher from each grade level. This teacher typically serves as the grade level chair as well. These teacher leaders, along with the administrators, make most of the decisions within the school. This shared leadership capacity empowers all members of the professional learning community to share in the vision and mission of the school and make effective decisions that positively affect student achievement. Hord (1997) writes that shared leadership structures in which administrators and teachers question, investigate, and seek solutions for school improvement is an important attribute of a professional learning community. Fullan (2002) offers that in order to sustain reforms, leaders must be cultivated at all levels of the organization to enhance the teaching profession. All teachers are expected to serve on a committee and provide leadership on those committees. Interview Participant 5 offered, “Leadership is distributed throughout the school through a variety of committees. Everyone is expected to serve in a leadership role.” An additional team has been formed this year to assist the Building Leadership Team at PLC Elementary School. The Management Team is responsible for addressing school management kinds of issues so the Building Leadership Team can focus on academic and policy issues.

Barriers

Despite the focus on learning, collaborative culture, shared leadership, and changed practices that have played a role in the sustainability of the professional learning community at PLC Elementary School, barriers that threaten the sustainability were also noted during the study. The Annenberg Institute (2003) has shifted its work with professional learning

communities to more effectively address barriers identified through their research. One barrier that was noted on several occasions involved the lack of buy-in from all teachers at the school. Skytt (2003) offered that culture change is about breaking down the barriers that promote isolation and developing a true spirit of teamwork. While the majority of teachers at PLC Elementary School seem to have bought into the concept of the professional learning community and can see its benefits, there are still a few outliers who do not support the reform wholeheartedly. Another barrier to the sustainability pertained to the rigid schedules the staff is expected to adhere to and the strict accountability practices.

Time constraints and job demands were also obstacles faced by the participants of the study. Barth (2001) acknowledges these issues also. Time in schools is in finite supply and in infinite demand, while responsibility upon responsibility has been added to the teacher's working day. A participant from Focus Group 1 said it best with this statement, "I don't see how you could fix the time issue. I honestly don't. With the way education is going now, more things get put on top of you and nothing gets pulled out from the bottom."

Other barriers worth noting in the study involved cuts in personnel due to tightening budgets, too many changes with initiatives and programs, and too much focus being placed on data. A participant from Focus Group 2 added, "Even though you have the data, sometimes you don't have the resources to adequately do anything with it." The elimination of teacher assistant positions has certainly created a barrier to intervention efforts of the school. The teachers realize the students' learning needs, but they don't have enough personnel to divide the groups effectively. Also, a frustration was noted about the continuous changes with programs and initiatives within the school.

Lastly, statements were made during the interviews about being too focused on data. A participant from Focus Group 1 noted, “It seems like all we do is talk about data and regrouping students.” Reeves (2009) offers a reminder that being too data driven can be an obstacle with this statement, “The essence of successful discussion about data is a commitment to examine not only the data, but also the stories behind the numbers” (p. 90). Teachers at PLC Elementary School realize these barriers exist and work to overcome them, but these obstacles were worth noting in the analysis.

The overall findings of this study indicate that professional learning communities can be sustained when a school’s culture shifts to one that is collaborative and focused on learning, leadership is shared and distributed within the school, logistical and supportive conditions are in place, and teaching practices change as a result of using data to drive instruction. The findings of this study provide educational leaders with knowledge of the kind of culture that must exist within a school, the conditions that need to be in place to support teachers, and the focus on data that is used to change teachers’ practice in order to sustain a professional learning community. As Morrissey (2000) contends, “Unlike the past attempts to improve education, a professional learning community is not a package of skills or a short-term program to implement, but an entirely new way for schools to function” (p. 12). The voices of teachers involved in this study speak loudly as they identify the keys to sustaining a professional learning community. These voices also speak of the barriers that threaten this sustainability and this information is useful to leaders as they work to preserve their professional learning communities.

Analysis of the Frameworks for the Study

The model the researcher used to construct the conceptual framework for the study focused on a theoretical lens called the Vygotsky Space. This model was used to explain the connections between individual learning, organizational change, and the sustainability of a professional learning community. The researcher used sociocultural theories of learning and a conceptual framework originally described by Harre (1984) to explore how PLC Elementary School transformed individual learning experiences into collective sources of knowledge, thereby supporting and sustaining the professional learning community. The Vygotsky Space was divided into four quadrants referred to as conventionalization (Quadrant I), application (Quadrant II), transformation (Quadrant III), and publication (Quadrant IV). Conventionalization was used to clarify how the implementation of a professional learning community was introduced to staff members within the school. The principal and a core team of teachers learned about the elements of a professional learning community and then presented the concepts to the staff in a number of staff meetings. The overall concept and reformed practices involved in the professional learning community were discussed at these meetings and staff assimilated and interpreted the concepts as individuals; therefore, the application quadrant (Quadrant II) of the framework was executed. Staff members had various reactions to these new ideas and some were excited to begin the professional learning community initiative. Other staff members were not as enthusiastic about the reform and have not bought into the concept completely. The majority of the staff has become active participants of the professional learning community and have changed their instructional practices as a result of the implementation of this concept. The staff use data to drive and differentiate their instruction as a result of this initiative. This process falls in the third

quadrant of the framework referred to as the “transformation” of their existing ideas and practices. The transformed instructional practices have been demonstrated to other members of the professional learning community and these changes are discussed in the grade level teams and at staff meetings routinely. Curriculum specialists and teachers demonstrate best practices to members of the professional learning community by modeling lessons or sharing their successes at formal meetings; thus, the learning cycle connects to a larger collective audience referenced in the model as publication. The participants in the study talked about the implementation of different programs and they referenced on-going instructional changes that were necessary with each group of children. The children offer different instructional challenges to the teachers each year based on their abilities and skill levels. These challenges force the teachers to implement a new set of conventions for practice and the framework cycles back to Quadrant 1.

As demonstrated in this conceptual model, learning within a professional learning community is a continuous, cyclical process. Through the understanding and application of sociocultural learning theory, the researcher determined the framework used for the study of the sustainability of a professional learning community to be appropriate. The factors needed to sustain the professional learning community at PLC Elementary School include a collaborative and learning focused culture, leadership that is shared and distributed within the school, logistical and supportive conditions that are created for the individuals within the professional learning community, and transformed teaching practices a result of using data to drive instruction. Learning by seeking answers to questions, collaboratively researching new ideas, discovering new methods, and testing and evaluating them are the driving forces for individuals in this professional learning community. Teachers engage in job-embedded

professional development structures for planning and discussion instructional practices and this creates a culture of professional learning within the school.

The educational literature has given considerable attention to defining the characteristics and structures of professional learning communities for school improvement. Among the practices that define professional learning communities are the active participation of teachers in creating a shared vision and culture to support collaboration so they can work together more effectively in identifying and resolving problems. Hord (1997) has researched learning communities for a number of years and through this research developed a set of attributes that are characteristic of professional learning communities. These attributes are as follows: (1) supportive and shared leadership, (2) collective creativity, (3) shared values and vision, (4) supportive conditions, (5) and shared personal practice.

Since the researcher wanted to determine the culture that created conditions for sustainability, along with the role leadership played in creating these conditions, and conclude what, if any, long-range effects of teaching practices as a result of the changed culture played a role in this sustainability, these attributes served as a framework for the eight focus group questions and 17 individual interview questions that were developed by the researcher. Hord (1997) studied the interactions of educators in schools where there was ongoing exchange around issues of teaching and learning to improve practice and student learning when developing this set of attributes. Since the attributes emphasized the purposeful nature focusing on continuous inquiry and improvement, this framework worked well for the development of these questions. Questions were crafted to include each attribute in an attempt to answer the three research questions. Using Hord's (1997) attributes that are characteristic of professional learning communities added an element of credibility to the

questions the researcher formulated. The researcher would use this framework again if faced with additional research questions pertaining to professional learning communities and their sustainability.

Study Limitations

The study is not without its limitations. While the researcher believes all participants provided their honest opinions when answering the interview and focus group questions, she cannot guarantee the opinions of those in this study accurately reflect the opinions of all the school's teachers.

The timing of the study did not allow the researcher to conduct observations of ongoing professional learning communities since data for the study was collected just as a new school year was beginning. The researcher was also limited in the amount of time that was spent observing teachers implement differentiated instructional strategies since the school year had just begun and the professional learning communities were just getting underway with their meetings. Also, the data from pre-tests and other common assessments was still being tabulated and students had not been divided into groups like they would have been later in the school year.

Another limitation noted in the research was the number of schools that qualified for the study. Only two principals out of the 46 contacted to complete the TPAI-R indicated they had functioned as a professional learning community since the 2008-2009 school year. Several of the principals indicated they were in the initial implementation stages of developing a professional learning community in their schools while others indicated they simply did not qualify for the study because their schools were not functioning in such a capacity. When the researcher attempted to follow up with the principals who had not

submitted a response of any kind, she learned the majority of those principals were new to their school settings and these individuals didn't feel they knew enough about their schools to participate in the study. During a phone conversation, one superintendent admitted to moving nine out of 16 elementary principals in his school system. This shift in leadership prevented some schools from being considered for the study.

Implications

In light of current budget cuts and limited professional development funding, the opportunity to offer high quality, in-house professional development will likely be appealing to many in the field of education. Professional learning communities afford schools the opportunity to implement strategies that allow participants specific and continuous occasions for learning and collaboration in the form of professional study groups, peer coaching, action research teams, shared development of learning standards, and cooperative assessment of student data (Haar, 2001). Professional learning communities transform teachers' daily work into a form of high-quality professional development.

While a single case study cannot provide a pervasive basis for the sustainability of a professional learning community, it does have implications providing evidence that professional learning communities can be sustained in schools where a learning focused and collaborative culture exists, leadership is shared, structural and supportive conditions are in place, and changed teaching practices have manifested. One of the strengths of this study is that it expands upon the existing research and provides the reader with some practical suggestions for sustaining professional learning communities. The element of the study that adds to the research involves the way data is used at PLC Elementary School to drive and individualize instruction for students. Transforming the school into a professional learning

community has become a way of life for the teachers involved in this study. The professional learning community process has been energizing rather than frustrating because month by month and year by year the teachers have seen new evidence that their collective efforts to improve instruction have indeed had an impact on student learning. The participants openly admitted they could never see themselves reverting back to their old ways of teaching and this admission definitely supports the sustainability of this professional learning community.

Schools and districts can become data-driven decision makers and focus on the improvement of student learning and achievement. Assessments are constantly being administered to determine the achievement of students in this results-oriented culture. The use of ongoing assessments and data provide the teachers with concrete results and opportunities to collaborate about continuous improvement. DuFour and Eaker (1998) state, “Unless initiatives are subject to ongoing assessment on the basis of tangible results, they represent random groping in the dark rather than purposeful improvement” (p. 29). Results orientation can be linked back to the three questions used within professional learning community to ensure that students can learn. Positive results have been obtained by answering these three questions: 1) What do we want each student to learn?, 2) How will we know when each student has learned it?, and 3) How will we respond when a student experiences difficulty in learning? (DuFour, p. 21, 2004). Properly used, data can make a difference in meeting the needs of every student and can be a powerful ally in stimulating positive change within schools.

It is anticipated that the findings of this study will contribute to the field of education and will reveal critical information relevant to sustaining professional learning communities. These findings are based on teachers’ perspectives about the sustainability of their

professional learning community. To promote the sustainability of professional learning communities, it is imperative that educational leaders first decide what kind of professional learning community they want to sustain and work to create such model. DuFour and Eaker (1998) suggest that, “Until educators can describe the school they are trying to create, it is impossible to develop policies, procedures, or programs that will help make that ideal a reality” (p. 64). The same concept can be tied to sustainability. It will be impossible to develop a culture, supportive conditions, or to change teachers’ instructional practices without first deciding what the professional community that is to be sustained looks like and then begin the process to implement, manage, and sustain those changes.

The findings of this study also have implications for the staff at PLC Elementary School. The teachers routinely focus on results through the ongoing use of assessment data and collaboration. Teachers work together to improve student achievement and the end result has become a guide for future improvement for all students at the school. Every teacher is expected to participate in the continual process of identifying current levels of student achievement, establish goals to improve the current level of achievement, work together to achieve these goals, and provide periodic evidence of progress; therefore, it will be vital to hire new teachers who are capable of working collaboratively within a team, show evidence of the ability to use data to make informed decisions about instructional practices to improve student achievement, and demonstrate the ability to focus on learning while being held accountable for the kind of results that sustain continual improvement. This is the type of individual who will continue to fuel the sustainability of this professional learning community at PLC Elementary School.

Implications for teacher education programs are evidenced in this study as well. Education majors are not in their training programs for long periods of time, and they typically have limited knowledge of professional learning communities, their benefits, or practices used to improve student achievement. Teacher education programs need to be designed in such a way that students are provided with this knowledge and then placed in schools where they can gain some firsthand experience within a professional learning community. Education majors need opportunities to create formative assessments and then be trained to work collaboratively with teaching peers to drive and individualize instruction for students. This opportunity to discover the benefits of being part of a professional learning community could deepen students' learning cycles and allow students to strengthen their skills and capabilities. This kind of experience would not only create more qualified teachers, but it would also create more hiring opportunities for these novice teachers.

This study also provides implications for Educational Leadership programs. Educational leaders are currently being evaluated on the effectiveness of professional learning communities within their schools. In order to meet this expectation, potential leaders must have an understanding of the steps required to implement a professional learning community, understand its benefits to students and teachers, and demonstrate the critical leadership components needed to sculpt a positive culture that is receptive to this kind of educational reform. School leaders must realize the importance of providing data to teachers in a timely manner and demonstrate expectations for the use of this data to drive instruction.

The idea of a professional learning community is one well worth adopting in order to promote school and system wide capacity building for continuous improvement and increased student achievement. School leaders shape and maintain positive values and shared

purpose within schools. The findings of this study will deepen district-level administrators' and school boards' understandings of the need to allow principals time to create positive cultures and climates in schools. Shaping a school's culture does not happen overnight. Principals need opportunities to uncover and articulate core values, fashion a positive context, and deepen the overall mission of the school. A barrier that was revealed during the site selection process of this study was the reassignment of school principals. The constant reassignment of school principals threatens the existence of professional learning communities. Knowledge of this barrier will enable educational leaders at the district-level to place effective principals in settings for longer periods of time in order for them to more effectively guide professional learning communities as they work to perpetuate school reform, implement continuous learning, and increase student achievement.

Recommendations for Future Research

The sustainability of professional learning communities continues to be fairly new to the research literature. As a result, there are facets of the sustainability of professional learning communities that could potentially benefit from future empirical research studies. Potential studies could explore the efforts to develop and sustain a professional learning community that is initiated from the district level. Since this study examined a professional learning community that was initiated and implemented at the school level, the development and sustainability efforts of a professional learning community initiated at the district level might look very different.

This study was conducted in a rural elementary school. Serious consideration should be given to the possibility of further research being conducted in urban and suburban elementary schools or in districts where strong teacher unions regulate the hours teachers

meet after school. Other possible school settings might include environments where higher economically-disadvantaged and minority populations exist. The comparison of findings would be interesting and may provide even more insight into the sustainability of a professional learning community in different types of school environments.

Since participants attributed their changed teaching practices to this professional learning community's sustainability, future longitudinal observational studies (both quantitative and qualitative) that document changes in teaching practice as teachers work in professional learning communities could provide valuable insight for educational leaders who want to see how those teaching practices change over time. A part of these studies could incorporate qualitative documentation of the nature of the work teachers do as they analyze student work and how this changes over time. Also, in-depth case studies of changes in students' learning for sample students in classrooms of teachers working in professional learning communities might add rich data concerning the impact of a professional learning community and its sustainability.

Lastly, throughout the interview process, the participants discussed various barriers that were experienced within their professional learning communities. One barrier that was referenced pertained to limited personnel available during the school's daily intervention time. As district budgets continue to tighten and personnel are eliminated as a result of budget cuts, further research into how professional learning communities' sustainability are impacted by these cuts would be beneficial information for educational leaders and state policy makers.

Conclusion

Based on the findings of this study, professional learning communities can be sustained when a school's culture shifts to one that is collaborative and focused on learning, leadership is shared and distributed throughout the school, logistical and supportive conditions are in place, and teaching practices change as a result of using data to drive instruction. Despite the fact this study supports that sustainability can occur, barriers still exist within professional learning communities.

The emerging themes: 1) Learning Focused, 2) Collaboration, 3) Leadership, and 4) Barriers support recent research on the sustainability of professional learning communities. Educational leaders who desire to create an environment of professional learners will explore these findings and will be able to systemically transform the organizational culture of their schools so that learning communities become "a way of life." The organizational structure of the school will change as leaders empower teachers to become an integral part of the decision making process. Skilled leaders are needed for this kind of change to endure time. A call to action to improve schools can be accomplished through sustained professional learning communities that exhibit a collaborative culture, commitment to learning, supportive structures and conditions, and changed instructional practices.

In conclusion, schools have traditionally been designed to ensure that children are taught. This traditional design collides with the foundation of professional learning communities that all children will learn and will learn at high levels. Fulton (2003) passionately states,

The current factory-model school, while seemingly efficient, is, in fact, grossly inefficient, inappropriate and ultimately inequitable, as it requires that all children

adapt to the mean. Those who do not learn at the speed of the assembly line lose out and/or drop out; those who could learn more, do not. Individualizing instruction for each learner is no longer a dream – it is an educational birthright for all children (p. 32).

Professional learning communities have the potential to significantly impact views of learning within a school's culture, distribute and share leadership opportunities, and increase student achievement through changed teacher practice. According to Huffman and Jacobson (2003), "Past decades have seen many educational reforms, all of which have been supportive of advancing student interests and providing the best possible educational experiences for these students" (p. 239). The researcher's hope is that educational leaders will begin to explore the idea of schools as professional learning communities and then work to sustain these communities.

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APPENDIX A

Letter to Superintendents



June ____, 2011

To Whom It May Concern:

I am currently working on my dissertation research in Educational Leadership at Appalachian State University. My research pertains to the sustainability of a Professional Learning Community in an elementary school setting. To conduct my research, I am requesting your participation.

I am formally requesting permission to conduct my research within your school system. Currently, I am seeking an elementary school that has functioned as a Professional Learning Community since the 2007-2008 school year to use as my research site. I would like to administer an electronic survey to your elementary school principals to determine a suitable study site. The electronic survey consists of approximately 50 questions and will require 15-20 minutes to complete. After determining a study site, a series of interviews, document reviews, focus group discussions, and observations will be used in my qualitative case study.

During the week of June 20-24, 2011, I will follow up with you via telephone to discuss your participation in the study and answer any questions you may have. I also want to assure you that all the information gathered from your school system will be used solely for research and every effort will be made to protect the anonymity of all research participants.

I look forward to speaking with you. Through our collective work, I would like to determine the keys to sustaining a professional learning community and share these findings with educational leaders throughout the nation.

Yours in Education,

Jennifer F. Hefner
828-632-7001 (ext. 236)
828-850-1055
jh26323@appstate.edu

APPENDIX B
Written Permission to use the Professional Learning Community Assessment – Revised



*Department of
Educational Foundations
and Leadership*

P.O. Box 43091
Lafayette, LA 70504-3091

April 26, 2011

Jennifer Hefner
Doctoral Student
Appalachian State University
680 23rd Ave NE
Hickory, North Carolina, 28601

Dear Ms. Hefner:

This correspondence is to grant permission to utilize the *Professional Learning Community Assessment-Revised* (PLCA-R) as your instrument for data collection for your doctoral study through Appalachian State University. I believe your research on schools functioning as PLCs over a designated period of time will contribute to both the research literature and provide valuable information to schools in relation to dimensions of learning communities. I am pleased that you are interested in using the PLCA-R measure in your research.

Upon completion of your study, I would be interested in learning about your results. If possible, I would appreciate the opportunity to receive raw data scores from your administration of the PLCA-R. This information would be added to our data base of PLCA-R administration. I would also be interested in learning about your entire study and would welcome the opportunity to receive an electronic version of your completed dissertation research.

Thank you for your interest in our research and measure for assessing professional learning community attributes within schools. Should you require any additional information, please feel free to contact me.

Sincerely,

Dianne F. Olivier

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Assistant Professor
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Citation:

Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2010). Assessing and analyzing schools. In K. K. Hipp & J. B. Huffman (Eds.). *Demystifying professional learning communities: School leadership at its Best*. Lanham, MD: Rowman & Littlefield.

APPENDIX C

Professional Learning Community Assessment – Revised (PLCA-R),
Oliver, Hipp, and Huffman (2010)

Professional Learning Community Assessment - Revised (PLCA – R)

Directions:

This questionnaire assesses your perceptions about your principal, staff, and stakeholders based on the five dimensions of a professional learning community (PLC) and related attributes. There are no right or wrong responses. This questionnaire contains a number of statements about practices that occur in some schools. Read each statement and then use the scale below to select the scale point that best reflects your personal degree of agreement with the statement. Shade the appropriate oval provided to the right of each statement. Be certain to select only one response for each statement.

Key Terms:

Principal = Principal, not Associate or Assistant Principal

Staff = All adult staff directly associated with curriculum, instruction, and assessment of students

Stakeholders = Parents and community members

Scale:

1 = Strongly Disagree (SD)

2 = Disagree (D)

3 = Agree (A)

4 = Strongly Agree (SA)

Shared and Supportive Leadership

1. The staff are consistently involved in discussing and making decisions about most school issues.

_____SD

_____A

_____D

_____SA

2. The principal incorporates advice from staff to make decisions.

_____SD

_____A

_____D

_____SA

3. The staff have accessibility to key information.

_____SD

_____A

_____D

_____SA

4. The principal is proactive and addresses areas where support is needed.

_____SD

_____A

_____D

_____SA

5. Opportunities are provided for staff to initiate change.

_____SD

_____A

_____D

_____SA

6. The principal shares responsibility and rewards for innovative actions.
_____SD _____A
_____D _____SA
7. The principal participates democratically with staff sharing power and authority.
_____SD _____A
_____D _____SA
8. Leadership is promoted and nurtured among staff.
_____SD _____A
_____D _____SA
9. Decision-making takes place through committees and communication across grade and subject areas.
_____SD _____A
_____D _____SA
10. Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.
_____SD _____A
_____D _____SA
11. Staff members use multiple sources of data to make decisions about teaching and learning.
_____SD _____A
_____D _____SA

7. The principal participates democratically with staff sharing power and authority.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

8. Leadership is promoted and nurtured among staff.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

9. Decision-making takes place through committees and communication across grade and subject areas.
- | | |
|------------------|------------------|
| <u> </u> SD | <u> </u> A |
| <u> </u> D | <u> </u> SA |

10. Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

11. Staff members use multiple sources of data to make decisions about teaching and learning.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

Shared Values and Vision

12. A collaborative process exists for developing a shared sense of values among staff.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

13. Shared values support norms of behavior that guide decisions about teaching and learning.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

14. Staff members share visions for school improvement that have an undeviating focus on student learning.
- | | |
|---------|---------|
| _____SD | _____A |
| _____D | _____SA |

15. Decisions are made in alignment with the school's values and vision.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

16. A collaborative process exists for developing a shared vision among staff.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

17. School goals focus on student learning beyond test scores and grades.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

18. Policies and programs are aligned to the school's vision.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

19. Stakeholders are actively involved in creating high expectations that serve to increase student achievement.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

20. Data are used to prioritize actions to reach a shared vision.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

Collective Learning and Application

21. The staff work together to seek knowledge skills, and strategies and apply this new learning to their work.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

22. Collegial relationships exist among staff that reflect commitment to school improvement efforts.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

23. Staff members plan and work together to search for solutions to address diverse student need.

<u> </u> SD	<u> </u> A
<u> </u> D	<u> </u> SA

24. A variety of opportunities and structures exist for collective learning through open dialogue.

<u> </u> SD	<u> </u> A
------------------	-----------------

_____D _____SA

25. Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry.

_____SD _____A
_____D _____SA

26. Professional development focus on teaching and learning.

_____SD _____A
_____D _____SA

27. School staff and stakeholders learn together and apply new knowledge to solve problems.

_____SD _____A
_____D _____SA

28. School staff members are committed to programs that enhance learning.

_____SD _____A
_____D _____SA

29. Staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices.

_____SD _____A
_____D _____SA

30. Staff members collaboratively analyze student work to improve teaching and learning.

_____SD _____A
_____D _____SA

Shared Personal Practice

31. Opportunities exist for staff to observe peers and offer encouragement.

_____SD _____A
_____D _____SA

32. Staff members provide feedback to peers related to instructional practices.

_____SD _____A
_____D _____SA

33. Staff members informally share ideas and suggestions for improving student learning.

_____SD _____A
_____D _____SA

34. Staff members collaboratively review student work to share and improve instructional practices.

____SD
____D

____A
____SA

35. Opportunities exist for coaching and mentoring.

____SD
____D

____A
____SA

36. Individuals and teams have the opportunity to apply learning and share the results of their practices.

____SD
____D

____A
____SA

37. Staff members regularly share student work to guide overall school improvement.

____SD
____D

____A
____SA

Supportive Conditions – Relationships

38. Caring relationships exist among staff and students that are built on trust and respect.

____SD
____D

____A
____SA

39. A culture of trust and respect exists for taking risks.

____SD
____D

____A
____SA

40. Outstanding achievement is recognized and celebrated regularly in our school.

____SD
____D

____A
____SA

41. School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school.

____SD
____D

____A
____SA

42. Relationships among staff members support honest and respectful examination of data to enhance teaching and learning.

____SD
____D

____A
____SA

Supportive Conditions – Structures

43. Time is provided to facilitate collaborative work.

____SD
____D

____A
____SA

44. The school schedule promotes collective learning and shared practice.
_____SD _____A
_____D _____SA
45. Fiscal resources are available for professional development.
_____SD _____A
_____D _____SA
46. Appropriate technology and instructional materials are available to staff.
_____SD _____A
_____D _____SA
47. Resource people provide expertise and support for continuous learning.
_____SD _____A
_____D _____SA
48. The school facility is clean, attractive, and inviting.
_____SD _____A
_____D _____SA
49. The proximity of grade level and department personnel allows for ease in collaborating with colleagues.
_____SD _____A
_____D _____SA
50. Communication systems promote a flow of information among staff members.
_____SD _____A
_____D _____SA
51. Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.
_____SD _____A
_____D _____SA
52. Data are organized and made available to provide easy access to staff members.
_____SD _____A
_____D _____SA

APPENDIX D
Informed Consent

Appalachian State University
Educational Leadership Doctoral Studies Program
Informed Consent

Study: A Case Study of a Professional Learning Community: An Investigation of Sustainability Within a Rural Elementary School

1. Jennifer F. Hefner (jh26323@appstate.edu) doctoral student under the supervision of Dr. Melanie Greene (greenemw@appstate.edu) and Dr. Jim Killacky (killackycj@appstate.edu), is requesting your participation in a research study entitled, *A Case Study of a Professional Learning Community: An Investigation of Sustainability Within a Rural Elementary School*. The purpose of the study is to examine and gain insight into the sustainability of a professional learning community.
2. A group of teachers from your school will be asked to participate in a focus group discussion. You may also be asked to participate in individual interviews during the month of September. The focus group sessions and individual interviews will last approximately 90 minutes each. The focus group sessions will be held in the school's media center and individual interviews will be held in selected teachers' classrooms. Both focus group discussions and interviews will be recorded and transcribed.
3. Participants should not share private, identifiable information about others during the focus group discussions, and confidentiality will be maintained within the group. Participants will not share any part of these conversations outside of the group.
4. If at any time during the study you are uncomfortable answering any of the questions, please feel free to decline a response or stop the interview. The design of the study has been created to minimize the risk to any participant.
5. The findings of such a study would contribute to the field of education by providing insight and knowledge into what is needed to sustain a professional learning community once it is established. The insight obtained through this research could also provide vital information acknowledging strategies and/or conditions that play a role in a professional learning community's sustainability.
6. There are no foreseeable risks from participating in this study. The results of the study will be published in my dissertation; however, the names of the participants, the school, and the school district will not be revealed in the study. For the purpose of the study, pseudo names will be assigned by the researcher to the school, school district, and all participants. Names will not be revealed by the researcher at any time. All transcripts and data collected will be kept in a secured area available only to the researcher. All data collected (recordings and transcripts) will be destroyed after a period of one year.
7. Any questions about the study should be referred to Jennifer F. Hefner, Dr. Melanie Greene, and/or Dr. Jim Killacky. Email addresses are listed above. Questions regarding the protection of human subjects may be addressed to the IRB Administrator, Research and Sponsored Program, Appalachian State University, Boone, NC 28608; (828)262-2130; or at irb@appstate.edu.
8. Your participation in the study is voluntary and will not be compensated. At anytime during the study, you are free to withdraw from the study without penalty or loss of benefits to which you are otherwise entitled.

Participant's Permission

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

Participant's Signature

Date

Participant's Email Address _____

Participant's Phone Number _____

Appalachian State University

Educational Leadership Doctoral Studies Program

Study: A Case Study of a Professional Learning Community: An Investigation of Sustainability Within a Rural Elementary School

I am currently a doctoral student at Appalachian State University. I would like to invite you to participate in a study of the sustainability of a professional learning community within a rural elementary school. Your participation is very valuable to the study and will help in determining the culture that creates conditions for the sustainability of a professional learning community, the role leadership plays in creating these conditions, and if the change in teacher practice as a result of the shift in culture plays a role in the sustainability of a professional learning community. Your school was selected based on a survey completed by your principal indicating your school has operated as a professional learning community since the 2007-2008 school year and adheres to a great number of the characteristics of a professional learning community. Your principal has also identified you as having participated as an active member of the professional learning community for a minimum of one year. The insights that you can provide will assist in developing a thorough understanding of the sustainability of a professional learning community in the elementary setting.

Responses from the focus group and interviews will be used as a part of a research project. Your participation in the study and responses to the questions will be kept confidential. Your identity and involvement in the study will not be revealed at any time. Your principal will not be notified as to whether or not you agree to participate in the study. Each participant, the name of the school and the school district will be assigned a pseudo

name for the purpose of research. This allows you to share your honest feelings about the sustainability of a professional learning community. It is imperative to the study that all of your responses reflect how you truly feel.

Over the course of several weeks, I will spend time talking with you about the sustainability of a professional learning community. Focus groups will be conducted consisting of approximately 8-12 participants (four to six participants in each group) from your school. During the focus group, the group will be asked questions regarding the sustainability of a professional learning community. The focus group will last no longer than 90 minutes and will be conducted in the school's media center immediately after school hours.

Individual interviews with some of the focus group participants may follow at a later time. I will schedule interviews for a time that is convenient for you and your schedule during the week following the focus group sessions. The interview session will last no longer than 90 minutes. During the interview, I will ask general questions pertaining to the sustainability of a professional learning community, the school's culture and leadership, and if the change in teachers' practice plays a role in the professional learning community's sustainability. For documentation purposes, I will take notes during the interviews and will ask permission to record our conversations.

There are no right or wrong answers to the questions that will be asked. Your impressions, reflections, and thoughtful answers are very important to the study. I want to gain an in-depth understanding of your perceptions of how a professional learning community is sustained.

You can decide at any time that you no longer wish to participate in the study, and I will respect your decision. I appreciate your willingness to consider participating in the study.

If you are willing to participate in this study, please review and sign the informed consent that is attached to this letter. After signing the informed consent, please return it to me in the stamped envelope that is enclosed. Thank you so much for your willingness to consider participation in this study.

Sincerely,

Jennifer F. Hefner

APPENDIX E
Script and Guidelines for Focus Groups

Focus Group Script

JH: I would like to thank you for attending this focus group interview session today. My name is Jennifer Hefner and I will serve as the moderator for today. I realize your time is valuable, and I appreciate you taking time to assist me with my dissertation research. This focus group interview is an informal method of sharing your thoughts and ideas in regards to the sustainability of your professional learning community. This session will be recorded. Do I have any objections to that?

JH: My role as moderator is to guide the discussion and ask questions. Please feel free to talk to each other. There are no wrong answers so please share your thoughts and ideas. Today's conversation will be recorded. No names will be used in my research

JH: I am going to ask some informal questions in order to get your perceptions about why your professional learning community has been sustained over the past years. I hope to gain insight into what has enabled your PLC to be sustained over time.

JH: Let's take a few minutes and introduce yourselves so that I can be on a first name basis with you.

Guidelines - (Kruger, 1998; Morgan, 1997)

Some things that will help our discussion go more smoothly are:

1. Only one person should speak at a time.

2. Please avoid side conversations
3. Everyone needs to participate and no one should dominate the conversation
4. The focus group will last no longer than 1- 1 ½ hours, many of you have cell phones, please avoid using your cell phones during this time. If at all possible please turn off your cell phones. If you need to keep your cell phone on, please put it on vibrate and leave the room if you need to take a call.

Guiding Questions for Focus Group Discussion

1. Describe your professional learning community. How is it unique from other professional learning experiences?
2. Once your professional learning community was implemented, what has been done to ensure it continued to function after the initial implementation?
3. What are the driving forces that enable your professional learning community to operate from year to year?
4. Do any specific individuals (inside or outside your school) play a role in your professional learning community's continuity? Who are these individuals?
5. What are some of the obstacles you encounter within your professional learning community?
6. Describe strategies that have been implemented to overcome these obstacles. Who initiated these changes?
7. Do you think your professional learning community would be sustained if there was a change in leadership? Why or why not?

8. How has your professional learning community changed over time? Have the changes played a role in its survival? Explain.

Thank you for your time today!! ☺

Possible Probing Questions (Kruger, 1998; Morgan, 1997)

1. Would you explain further?
2. Can you provide an example?
3. Please describe what you mean?
4. Can you clarify? I want to make sure that I understand.
5. One thing that I have heard several people mention is _____. I am curious as to what the rest of the group thinks about that.
6. Are there any other thoughts that have occurred to you?

APPENDIX F
Individual Interview Questions

Guiding Individual Interview Questions
Developed from Hord's (1997) Framework of the Five Dimensions of a Professional Learning Community

Shared Values and Vision

1. What is the vision of your school?
2. Describe how the staff works collectively toward the vision of the school.
3. How is this vision communicated to individuals inside and outside the building?
4. Describe the process used to revise or reaffirm the school's vision, mission, and shared values.

Shared and Supportive Leadership

5. How are new faculty members inducted into the culture of the school and decision making processes of the school?
6. How is leadership distributed throughout the school?
7. What role does central office personnel play in the decision making process of your school?

Collective Learning and Application

8. How is learning initiated with staff? How often? How are learning topics determined?
9. What conditions are in place to allow implementation of newly learned skills?

Shared Personal Practice

10. What opportunities are afforded to staff to come together to discuss their work, to review student work, and provide feedback?

11. Do individuals outside the school's staff play a role in the implementation of best practices? If so, how does this happen?
12. How have your teaching practices changed as a result of being a part of a professional learning community?

Supportive Conditions – Structures

13. What structures are in place to ensure your professional learning community is sustained?

Supportive Conditions – Relationships

14. What kinds of social interaction opportunities take place in your school?
15. How are people engaged in dialogue to resolve problems when they arise within your school?

Supportive Conditions – External Support System

16. What critical components are included in the school's Improvement Plan that play a role in the sustainability of your professional learning community?
17. What would you change about your professional learning community?

APPENDIX G
Letter to Principals

June ___, 2011

Dear Principal:

I am currently working on my dissertation research in Educational Leadership at Appalachian State University. My research pertains to the sustainability of a Professional Learning Community in an elementary school setting. To conduct my research, I am requesting your participation.

I requested and have been granted permission from your superintendent to conduct my research in your school system. Currently, I am seeking an elementary school that has functioned as a Professional Learning Community since the 2007-2008 school year to use as my research site. I would like for you to complete an electronic survey (through the utilization of Survey Monkey) to determine if your school is the best site for my study. You will receive the survey via email within the next week. The electronic survey consists of approximately 50 questions and will require 15-20 minutes to complete. Upon completion of the survey, I will determine if your elementary school most closely adheres to the attributes of a professional learning community in comparison to others surveyed within Region 7 of North Carolina. Please note that your completion and return of the survey could result in additional research activities being conducted within your school and would serve as your consent to participate in my study.

I want to assure you that all the information gathered from your school will be used solely for research and every effort will be made to protect the anonymity of all research participants.

I look forward to the possibility of working with you. Through our collective work, I would like to determine the keys to sustaining a professional learning community and share your success story with educational leaders across the nation.

Yours in Education,
Jennifer F. Hefner
828-632-7001 (ext. 236) or 828-850-1055

APPENDIX H
Letter of Agreement for Principal

Letter of Agreement for Participating Principal

July ____, 2011

To the Appalachian Institutional Review Board (IRB):

I am familiar with Jennifer Hefner's research project entitled *A Case Study of a Professional Learning Community: An Investigation of Sustainability Within a Rural Elementary School*. I understand my school's (***name to be inserted upon determination***) involvement to be to allow teachers to participate in focus group discussions after school hours for approximately 90 minutes, to allow teachers to be interviewed individually at a time determined by the teacher for approximately 90 minutes, to allow direct observations of grade level/team planning/study group sessions, and to provide documents for the researcher to review (such as the school's Improvement Plan, minutes from team planning sessions, logs/minutes from study group sessions, etc.)

As Ms. Hefner conducts this research project I understand and agree that:

- This research will be carried out following sound ethical principles and that it has been approved by the IRB at Appalachian State University.
- Employee participation in this project is strictly voluntary and not a condition of employment at my school. There are no contingencies for employees who choose to participate or decline to participate in this project. There will be no adverse employment consequences as a result of an employee's participation in this study.
- I will provide names of potential participants, but I will not be notified of who participates in the study.
- To the extent confidentiality may be protected under State or Federal law, the data collected will remain confidential, as described in the protocol. The name of my school will **not be** reported in the results of the study.

Therefore, as the principal of [***school name to be inserted***], I agree that Jennifer Hefner's research project may be conducted at my school, and that Jennifer Hefner may assure participants that they may participate in the case study and provide responsive information without adverse employment consequences.

Sincerely,

Principals' name & title _____

School name _____

Principal's email address _____

Principal's telephone number _____

VITA

Jennifer Frye Hefner is a native of Taylorsville, North Carolina. She is the fifth of seven children. As a child, she attended Ellendale Elementary School and West Jr. High School in Alexander County. She attended Alexander Central High School in Taylorsville, North Carolina graduating in 1986. In the fall of 1988, she entered Catawba Valley Community College where she took classes in the evening while working as a bus driver and teacher assistant in the Alexander County School System. In 1991, she transferred to Lenoir-Rhyne University where she earned a Bachelor of Arts degree in Elementary Education.

In August of 1993, she began teaching at Bethlehem Elementary School. While teaching sixth grade at Bethlehem, she attended Appalachian State University and in 1999 received her Master's degree in School Administration. During her teaching tenure, she was awarded the Sallie Mae First Class Teacher Award in 1994 and the Mathematics Teacher of the Year in 1998.

Upon completing her fifth year as a teacher, she was promoted to the roll of assistant principal at Bethlehem Elementary School. In June 2000, she was promoted to the principalship of Bethlehem and she began working on her Education Specialist Degree in the fall of 2001 at Appalachian State University. She graduated in May 2003. During her tenure as principal, she was awarded Principal of the Year in Alexander County and Northwest Regional Finalist for the Wachovia Principal of the Year in 2007.

In the fall of 2004, she began work on her doctorate at Appalachian State University and completed her degree in 2011. Ms. Hefner has served in the role of Director of Elementary Curriculum/Title I/K-12 Student Services for Alexander County Schools since August 2009.